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HISTORY

OF THE

BERWICKSHIRE

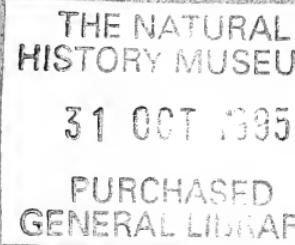
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"MARE ET TELLUS, ET, QUOD TEGIT OMNIA, CŒLUM"

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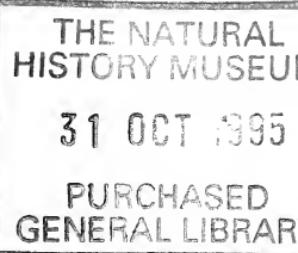
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HISTORY OF THE
BERWICKSHIRE NATURALISTS' CLUB

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HISTORY
OF THE
BERWICKSHIRE NATURALISTS'
CLUB

THE CHOLERA EPIDEMIC OF 1832 IN DUNS AND THE BORDERS, AND THE ROMANES FAMILY CONNECTION

being the Anniversary Address delivered by Mrs Sheila Romanes, President of the Club, on 21st October 1994.

My address is a piece of social history inter-twined with a piece of family history, and there are three reasons for my choice of subject for this paper.

Firstly I have always been interested in social history and especially in the difference in our human condition since the days when a child's first year of life was so fraught with danger that many never saw their first birthday. Childbirth was perilous for the mother too, and often ended in fevered death. The lack of clean water in the homes, the wells and outside privies and the lack of things we take for granted now, meant that hundreds fell prey to epidemics such as cholera.

The second reason was the wealth of information I had on the subject. My husband's great-grandfather and his uncle were closely connected with the cholera epidemic in Russia and later through that, with Kelso and District. This is recorded in the book *The Calls of Norfolk and Suffolk. Their Paston connections and descendants* written by my husband's grandfather, Charles Simon Romanes who was a C.A. in Edinburgh but had a country home in Buskingburn near Coldingham and was a member of the Berwickshire Naturalists. Then there were the documents left in my father's office from the days of the Feuars of Duns which contained many references to cholera in Duns and district.

Thirdly there was that date — 1832. It is a poignant thought that our Berwickshire Naturalists' Club was instituted in 1831, the year before the worst local epidemic.

I had written a short article, originally for this year's history and after I submitted it to our Editing Secretary, Mrs Cowe said she liked it, but wanted me to make it longer and to tell more

about the Romanes Family connection with the cholera epidemic, so I expanded it. With her agreement, Janet lost her article for this year's History and I decided on the subject of my address. The title is 'The Cholera Epidemic of 1832 in Duns and The Borders and the Romanes family connection'.

There is a disease, described by Hippocrates, Galen and other writers on medicine which modern doctors easily recognise as cholera, variously described as 'summer cholera' or 'European cholera' or 'Cholera Morbus'. The more malignant form of the disease was Asiatic Cholera which began in India and was confined to Eastern countries until the 19th century.

In 1817 there was cholera in Europe, but the epidemic which reached our part of Scotland started in India in 1826, reached Moscow and Berlin in 1831, Paris and the British Isles in 1832 and thence spread to Canada, carried by emigrants in that same year.

1832 is exactly the year which appears in many references to cholera in the documents of the Feuars of Duns and although other outbreaks occurred later in the 19th century, the one of 1832 was the worst.

In a letter sent from the Central Board of Health, Whitehall, dated 13th December 1831 there are authoritative statements on what precautions to take during a cholera epidemic — they seem so ineffectual now. They were right in one respect — the need for cleanliness. But how difficult this was in the days of no indoor water or sanitation. People were exhorted: 'Space, cleanliness and pure air are of the most vital consequence.' With a plethora of capital letters, the document advises, 'The room should be purified by scrubbing, lime-washing, free ventilation and fumigation by heated Sulphuric Acid and common salt, with Black Oxyde of Manganese or the same Acid with Nitre, or when these materials cannot be obtained, by strong vinegar thrown upon heated bricks.' The room must have seemed like Dante's Inferno, whichever method was used.

'The Bed, Bedding and Clothes should be immersed in water, washed with soap and afterwards fumigated as above.'

'To correct all offensive smells, Chloride of Lime may be applied; but great caution is recommended in the use of this Material, its Fumes continued for any length of Time having been found highly prejudicial to Health, more particularly in delicate persons.'

'A number of *steady men*' — this presumably applies to their reliability, not to their sobriety! — 'proportionate to the District in which they are to act, should be appointed to lime-wash and purify as ordered above, under the direction of Medical Authority such apartments as may be pointed out by the Inspectors of the Local Board.'

'Those who die of this disease should be buried as soon as possible, wrapped in Cotton or Linen Cloth saturated with Pitch or Coal Tar, and be carried to the Grave by the fewest possible Number of Persons. The funeral Service to be performed in the open Air.'

The danger of infection was thus realised. In his paper on Berwick Infirmary, Dr Binnie told us how the cholera referred to as 'the malignant distemper' appeared in 1832 in Berwick, but an approach by the Berwick Board of Health to use the uppermost floor of the dispensary for cholera patients was turned down because it could not be isolated from the rest of the building. Not till 1854 at the time of a later epidemic were patients admitted.

A letter dated 9th March 1832 came to Duns Board of Health from A. McLaren of Coldstream reporting on the state of the cholera epidemic there and giving advice on avoiding an epidemic in Duns, so it must have come to Coldstream first, a town right on the border. I have seldom read such a complacent epistle.

Dear Sir,

My son John I can send to your town with all confidence as he has never been in the way of infection — my house you know is some distance from Coldstream and I have taken care to cut off any chance of infection from the town.

I would give you my earnest advice to hinder all vagrants from coming to Dunse for it was through them the disease was brought here.

They came after the constables went to bed and were away in the morning, so look well to that.

We have reason to be thankful that although the disease has been rather deadly yet the numbers are small and except one or two persons they were all such as might look for trouble from their former state of health.

This smacks cruelly of 'survival of the fittest'.

Urge upon the people the propriety of sending for a surgeon the moment they feel unwell. If it is taken in the first stage it seems as easy to manage as a common cold, needing only loss of a small quantity of blood and a little opium and they may be almost certain of cure, but when the people neglect themselves till the second stage comes on, I would not insure their lives for 75 per cent. It has been the folly of the people here that has caused so large a proportion of deaths but experience is now teaching them more caution.

I must say since we have had the disease in the town that

I feel less dread than formerly and this seems to be the feeling of almost every one.

I hope we have now got over the worst of the trouble and most earnestly wishing it may not visit your town.

I am, dear sir, yours, A. F. McLaren.

P.S.

If the county wish to prevent the disease spreading to other places they should not cut too close to the wind in money matters. We have used every precaution but money must be had. In fact in cases of cholera it is of as much importance as a well-filled medicine chest.

It was ever thus!

But Duns was already spending money and had posted guards at the ends of the town a full month before this letter arrived. The rate of pay was nine shillings for six days of watching for each man. They were given the grandiose title of constables, though some could not sign the receipts, but their mark and their name was inscribed beside their cross by a more literate citizen. There were several receipts showing that the wage was 1/6d each day.

Vagrants who were caught were put in the lock-up house overnight. A Walter Sedgeley was paid for 'white-washing the lock-up house' and there was a voucher for 'lantern, spoons and basins' for the vagrants. Alexander Park (the postman) had an extra source of income from 'fumigating letters' and George Paxton sent a bill to the Feuars for providing the fumigator.

As early as November 1831 it was decreed that, 'It is of the utmost consequence, nay it is absolutely necessary that all NUISANCES be immediately removed — such as DUNG-HILLS, and every other accumulation of FILTH; also PIG-STYS and NECESSARIES to be frequently and well cleaned.' Another admonition was, 'In the prevention of this complaint, nothing is of greater importance than the strictest attention to sobriety.'

One sensible idea was that people should be well nourished and a good diet would help to prevent the disease. Posters were put up in the town and hand-bills sent out in February 1832, intimating a 'General Meeting . . . for the purpose of raising a fund for establishing a soup kitchen and making arrangements for the prevention of cholera.' The letter from the Central Board of Health in Whitehall had emphasised a 'good diet' and with the soup kitchen the Feuars of Duns were doing their best to follow the advice. At a meeting in the Town Hall of Dunse in February 1832 they decided on quantities:

NOTICE.

A General Meeting of the Inhabitants of the Town of Dunse and the Vicinity, is to be held in the Town Hall there, on FRIDAY the 3d February 1832, at 12 o'clock noon; for the purpose of raising a fund for Establishing a Soup Kitchen, and making arrangements for the prevention of Cholera, and other matters connected with the public health.

Dunse, 31st Jan. 1832.

Dunse: Printed by J. BROWN.

The meeting is of the opinion that $\frac{1}{6}$ part of a gallon will be sufficient for one person and that a measure or ladle should be made of this size. . . . From the state of the funds it is considerd that along with the soup, the Committee will be enabled to give each person an 8oz. loaf of household bread.

This seems a fairer ration than poor Oliver Twist and his companions received from Mr Bumble in the workhouse.

It is the opinion of the meeting, to make 45 Imperial gallons of soup would require the following quantities

Butcher meat — 45 lbs
Barley — 25 lbs
Oatmeal — 3 lbs
Black pepper — 3 ozs

Vegetables to consist of carrots, leeks or onions and Swedish turnips.

The soup was to be cooked by Margaret Holywell and Betty Taylor, each to get six shillings per week (and bounteous broth I'll be bound!)

David Dunse was to superintend the soup kitchen and his remuneration was to be left to the committee.

Bills coming into the Feuars of Dunse include some from the many butchers in the town: 'Adam Dickson for beef', 'John and David Mickle for beef, Thomas Rutherford for beef, James Swan for beef'. Then there were other bills, 'William Euan for leeks and John Inglis for leeks'. Over 200 'poor people' as they were described, had put forward their names for the broth.

No 102 was Mark Lawson's widow and 3 children

No 114 was the Widow Fyfe

In the *Kelso Mail* of 1st March 1832 there appeared this notice:

CHOLERA

By Authority of the Board of Health in Dunse
Appointed by his Majesty's Privy Council

As the cholera has appeared in Edinburgh, in Haddington and other towns and villages in East Lothian and also in Kelso and Coldstream, NOTICE is hereby given that no Hawker, Pedlar; Gingerbread-Dealer, Fruit-Seller or other person of such descriptions will be permitted to enter the town unless they bring with them a certificate from a Member of the Board of Health.

Similar certificates will be required from the persons coming to Dunse as long as cholera exists in the towns or villages from which such persons come.

The inhabitants of this district are earnestly requested to avoid frequenting those places where cholera exists, keeping in mind that their return may be prevented.

Board of Health, Dunse. Feb 22nd 1832

Opposite is an original handbill — probably the one given to a printer. It is in beautiful copper-plate writing.

Notice

John Hudson returned last night from Tranent & Cockenzie where Cholera at present prevails.

The Public are cautioned from having intercourse with him or his Family for a few days.

Dunse 1st March 1832

In other words, that family was treated as unclean, like lepers in medieval times — no one was to approach them or speak to them.

Nowhere was it appreciated that cholera was a water-borne disease. There is in Soho a monument to Dr John Snow in the form of an old water pump. It was Dr Snow who identified

Notice

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Dunse 1st March 1832.-

one such pump as the source of the cholera epidemic which claimed 500 lives in Soho in a month. But that was not till 1854.

Medical Science proved remarkably resistant to his hypothesis that the cholera bacterium was water-borne. Indeed as late as 1893 when thousands died in the last great European epidemic in Hamburg there were still those who insisted that cholera was caused by 'contagious vapours'. It has been cynically pointed out that was a less expensive theory and saved modernising the water and sewage systems.

In Glasgow in 1832 there were 4,000 deaths from cholera and typhus. Later in the century Queen Victoria turned on water brought by gravitation from Loch Katrine 35 miles away. In the cholera epidemic which swept through Britain in 1866 only 55 people died in Glasgow. There seems little doubt that the 37 million gallons of water per day made the difference.

In 1894 Glasgow built one of the first sewage farms.

But let us return to 1832 and Duns. In the 1831 letter from Whitehall to Duns it is stated that 'the leading preliminary symptoms generally are — Diarrhoea, spasms, Apoplectic Vertigo, imperfect vomiting or various combinations of these symptoms. Moderate bleeding with leeches is recommended. Energetic complete vomiting will probably be produced by giving two tablespoons kitchen salt in 6ozs warm water.' That was the most liquid the patients were ever given.

Nowhere do they seem to realise that *dehydration* is the biggest worry although the nearest to this realisation is this quotation

from the Whitehall letter: 'Thirst being a most distressing symptom of the disease . . . the Quantity taken at a time should not exceed four fluid ounces and should be acidulated with Nitrous Acid, if the patient will bear it.'

When I read that I thought of the first essay subject I was given at University: 'Discuss — the life of the Medieval Villein was nasty, brutish and short'. The lot of the 19th century cholera patient was not a comfortable one either.

Meanwhile in Russia Charles Simon Romanes, my husband's great-grandfather, still a young boy, saw how his uncle David Bell was working among the cholera victims in St Petersburg.

I must first explain the Romanes family's connection with Russia. The story is contained in the book *The Calls of Norfolk and Suffolk* by Charles Simon Romanes, my husband's grandfather who was a keen antiquarian. In his obituary in the Berwickshire Naturalists of 1922 we read how he was born in St Petersburg in 1851, studied at Edinburgh University and became principal partner of the firm of Romanes and Munro. His research work led him to edit for the Scottish History Society and the Scottish Record Society and to make exhaustive investigations into the history of his own family back to the 15th century. He bought Norham Castle in 1919 and after excavating Marmion's Gate and restoring the stairs, gave it to the National Trust. He died soon after his excavations at Coldingham Priory had begun.

There is a square in Kelso called Simon Square after his great-grandfather Simon Romanes, born 1787 (my husband's great-great-grandfather). Simon lived in a tall, narrow Georgian house which still stands opposite the Waggon Inn and the new Police Station. At one time that square was filled with the cottages of the workers in the Romanes family's iron foundry. The cottages have all gone but the family home still stands, somewhat forbidding and narrow, but softened in the Spring by a lovely cherry tree which grows in the cobbled yard. The door at the Woodmarket side led into his office. In his early thirties Simon left his brother John in charge of the Kelso Foundry and went to Russia to start a foundry in St Petersburg.

We forget how many Scots went to Russia, especially St Petersburg, in the early 19th century. We know of the many Scots governesses in Russia all through the century and indeed another great-great aunt of my husband, Miss Ann Davidson, was English governess to Nicholas who grew up to be the ill-fated Tsar executed by the Bolsheviks. The governess in a Russian family, even the Royal family, was not relegated to a lonely attic but had meals with the family, not just the children.

But apart from the Scots governesses who went out, there were

many 19th century entrepreneurs and Simon Romanes was one of them. In 1824 he married Catherine Manners, daughter of Charles Manners who had married Lucy Call, the 'Belle of Alnwick'. Charles Manners' father had been landscape gardener to the Duke of Northumberland, and the young Charles had followed in his father's profession. In 1792 Empress Catherine of Russia, who had heard of his landscaping skills, communicated with the Duke who arranged that Charles Manners and his brother-in-law Martin Miller Call should go to Russia to lay out the Imperial Palace gardens, the Torida gardens and the Palace gardens at Tzarkoi Celo.

On the day Simon married Catherine, her sister Lucy was also married, but the happy day ended tragically when Charles Manners, their father, dropped down dead after the ceremony. It seems he had slipped away to inspect the conservatories — surely too conscientious on such a day!

Simon and Catherine had a son and three daughters. The son was Charles Simon Romanes, father of the Charles Simon Romanes who was a member of our club. He was educated at schools in St Petersburg, then he came to Edinburgh University to study medicine. After almost five years he was compelled to interrupt his studies due to his father Simon's serious illness and return to Russia to assist in the business. His medical training was of great service during the outbreak of the second great cholera epidemic in Russia and he helped his Uncle David Bell who was using the procedures he had found successful in the 1831 outbreak.

David Bell had been presented with a gold medal by the Emperor of Russia for his work in the cholera epidemic of 1831. On one side were engraved the words 'Za Ouserdia' which is 'For Devotion' in English, and it was suspended on a ribbon of the Order of St Vladimir.

A letter appeared in the *Kelso Chronicle* written in October 1848 in St Petersburg and sent to Kelso by Charles Romanes who wanted people to hear of his uncle's work:

The pestilence has been smiting the living around us by thousands daily and we are the living monuments of the Lord's goodness. Death has visited and we have passed through much suffering, affliction and trial. The Lord's hand has been laid upon me heavily and twice have I been saved from the death by the pestilence. I lost an uncle by the cholera (Mr David Bell); he fell a martyr labouring for the good of the suffering people around. Having saved about 1000 individuals he lived to see the disease abate and

caught the infection while attending an old woman who lay dying of cholera.

It goes on to say he had sent a plan of the treatment to be published in Scotland and added,

I also send a copy to Kelso to be made known as the only specific against cholera known. It was laid before the Emperor and Sanctioned by His Imperial Majesty.

The *Kelso Chronicle* proceeds to say 'We readily give insertion to the following communications being from a gentleman intimately connected with the town of Kelso'.

He gave a graphic account of the onset of cholera and I quote just part of the treatment. Although the word 'dehydration' is not used, the whole tone of the treatment seems to be so much more humane than the advice given in the Whitehall letter to Dunse in 1831. Remember the sentence, 'No more than 4 fluid ozs acidulated with nitrous acid if the patient will bear it'.

Charles Romanes wrote 'When the patient was sick we gave him a *copious draught* of warm water several times repeated to cleanse the stomach, and when the retching subsided we gave (an adult) two tablespoons of castor oil with 20 or 25 drops of laudanum and 3 or 4 drops of oil of peppermint and if this was retained in the course of an hour, a wine-glass of hot water and 20 drops of laudanum, this given one half at a time with half an hour between each.'

Another suggestion was — a patient could be rubbed with 'strong spirits in which cayenne pepper had been steeped, then with a little sweet oil mixed with laudanum. The sweet oil makes it more agreeable to rub and prevents the laudanum from taking the skin off, which it would do if applied alone.'

How much kinder this was than the process commonly used by German doctors in Germany and Russia — whipping with nettles. When the patient seemed in a 'cold death-like faint' they would whip them so that the nettles would blister their skin to promote circulation. They even put patients into scalding baths and they died in agony.

The directives in the Whitehall letter to Duns in 1831 said 'Warm baths are worse than useless . . . hot air baths, so contrived as to be applicable in a recumbent posture and admitting Access to the patient for the purpose of friction, may be of use but an erect or semi-erect position has been observed to produce instant death.'

I do not think any of us would have wished to be nursed in Duns, Coldstream, Kelso or indeed St Petersburg.

We know from our TV screens with the terrible pictures of the cholera epidemic in Rwanda earlier this year and of the bubonic

and pneumonic plague in India that epidemics can occur anywhere where there is no clean water and social upheaval.

Roy Porter of the Wellcome Institute for the History of Medicine wrote this in August this year:

Epidemics are the concomitants of social disintegration. Civil war, armies of occupation, refugees, economic collapse, hunger and the collapse of civil authority have always been breeding grounds for pestilence. Warfare spread syphilis throughout Renaissance Europe. Three million died of Typhus in Bolshevik Russia. The giant troop movements of the Great War facilitated the worst pandemic in history, the so-called 'Spanish flu' of 1918-19 which killed 21 million world-wide. Small surprise that cholera is rife in Kabul (Afghanistan).

So pestilence, the fourth Horseman of the Apocalypse, has not been unseated from his saddle in every part of the world.

The old diseases can only be kept at bay if conditions allow it and that the miracle of anti-biotics does not fade with mutant micro-organism strains which outsmart our immune systems. But alarmism is not necessary. When we return to our comfortable homes we shall be glad it is 1994 not 1832.

There may be an unanswered question in your minds. What happened to the first members of our club? There were only nine founder members (seven doctors and two ministers) in 1831. By 1832 there were eighteen members. In his anniversary address of 1832 Dr Johnson described the time of the cholera in a moving passage with some of which I shall end:

I cannot, I must not conclude this address without an expression of, I trust, our united gratitude to the Preserver of all and the Giver of all good. That fatal disease which has walked over the length and breadth of the land with fear in its front and mourning in its rear has not left this Country altogether unvisited; and we cannot yet think of its ravages in the place where we are assembled without deep feelings of pity for the loss sustained by the survivors and without gratitude that here its desolating course was stayed.

No member of the Club has been removed by death.

BIBLIOGRAPHY AND REFERENCES

1. The records of the Feuars of Dunse.
2. Romanes, Charles S. (1920) *The Calls of Norfolk and Suffolk, Their Paston connections and descendants.*
3. *History of the Berwickshire Naturalists' Club.* Vol 1, 1832. Dr Johnson's Anniversary Address.

4. Binnie, Dr G. A. C. 'Berwick Dispensary and Infirmary 1814-1895', *History of the Berwickshire Naturalists' Club*, Vol 41.
5. Porter, Dr Roy, Reader in the Social History of Medicine, Wellcome Institute, *Daily Telegraph*, August 24th 1993.

BORDER WOODLANDS: I — BERWICKSHIRE

C. O. Badenoch

Scottish Natural Heritage, Galashiels.

In 1990 the then Nature Conservancy Council was completing its *Provisional Inventory of Ancient Semi-Natural and Long Established Woodlands in Scotland*.

Not all the historical evidence collected by field officers could be presented at that time, and it is considered that a wider local audience might stimulate further, deeper research and discovery of local estate and farm records may be a profitable and interesting seam of our area's history.

This was especially so in Borders since the author of this section was not an historian and yet could see the immense possibilities for more detailed researches in the Club's area.

Woodlands of native species are the climax vegetation of the Borders within the present climatic and soils regime and, right back to their development from early herbaceous vegetation upon the retreat of the glaciation, round 11,000 years ago they are the major wildlife resource for mosses, liverworts, flowers, plants, ferns, insects and other invertebrates, mammals and birds. Yet here in the Borders region it is no exaggeration to say they are in crisis. What led to the present sorry conditions?

Prehistory: Palynological and Stratigraphic evidence

Other than hill peat of the Lammermuirs, the main peat deposits of Berwickshire occur as lowland Raised Bog ('Hochmoor') — of which less than five remaining examples occur, only two of which have had any stratigraphic studies — and basin or valley mires, most of which have been so severely modified by the intensity of modern and historic land-use — peat cutting, marl digging, drainage, dumping — as to render their stratigraphy wholly unsuitable for research. As a result one is forced to consider adjacent research sites such as Threepwood Moss (10 km west into Ettrick and Lauderdale) and Din Moss (8 km south into Roxburgh).

Mannion (1982) summarises the main stratigraphic results of these as in Table 1 (see overleaf).

Other stratigraphic studies have been done in the old County of Berwick, e.g. at Whitrig Bog — now 1 km west of the present District — by Connolly (1957), Connolly and Dickson (1969) and

Godwin (unpublished 1952, personal communication) but these are of most relevance in the late glacial context rather than that of the arboreal forest.

TABLE 1

Pollen Assemblages from Din Moss, Roxburgh and Threepwood Moss, Ettrick and Lauderdale after Mannion, 1982.

Flandrian Period	Din Moss	Radiocarbon Dates (Radiocarbon Years Before Present)		Threepwood Moss
		unknown		
LATE	Herb			Herb
	Oak, Alder			Oak, Alder, Birch
	Elm decline	5341± 70		Elm decline
				Oak, Elm, Birch, Alder
<hr/>				
MID	Oak, Alder, Elm	-		
	-	6528± 100		
	Birch, Oak, Alder	-		Birch, Oak, Alder
	Hazel			Hazel
<hr/>				
EARLY		7360± 40		
	Birch, Oak, Hazel	-		Birch, Oak, Hazel
	-	8940± 70		-
	Birch, Hazel	-		not represented
		9275± 170		
	Birch, Pine, Hazel			not represented
		9810± 190		not represented
	Birch, Pine, Juniper	10340± 200		not represented
<hr/>				
LATE				
DEVENSIAN	Base of core	12225± 250		
<hr/>				

The main sources for this work are at Din Moss, Hibbert and Switsur (1976), Switsur and West (1973), and at Threepwood Moss, Durno (1967), Mannion (1979a) (1979b), (1982).

Timber and tree macro-remains in peat bogs are recorded in a number of accounts of the District. Carr (1836) in a footnote says: 'Our neighbourhood appears to have been at one time much more extensively wooded than has been allowed by Chalmers and later writers. The mosses at Coldingham Moor present incontrovertible evidence of their having been once covered by wood. Out of those called Drone and Long Moss are frequently dug the trunks of Oak, Birch and Hazel, with nuts of the latter; and portions of the former were a few years ago taken up according to my informant, Mr

Logan, Auchincrow Mains, upon the bleak and high-lying farm of Dulaw' (Dowlaw). He also mentions roots of Oak and other trees discovered in draining the Billie Mire.

Carr's statements as to ancient woodland clues are confirmed in the New Statistical Accounts (various 1845): For the parishes of Cockburnspath and Old Cambus, 'In the mosses some very large fossil oaks have been occasionally met with'; for Whitsome and Hilton, 'The alluvial soil, to a considerable depth is replete with vegetable remains such as oak, copsewood, hazelnuts, etc.'; for Edrom, 'There is a shell marl bog on the estate of Kimmerghame. . . . In working the marl, several beavers heads (one nearly entire) were found. . . .'; for Westruther, 'Eight or ten feet below the surface of the moss in Jordanlaw, there is a bed of wood, consisting wholly of hardwood, out of which bed oaks have been dug of a very great size, measuring in one instance twelve feet in periphery'. Legerwood parish account in the 'Old' Statistical Account (Sinclair 1791) gives: 'The marshes present deep strata of peat-earth. Here are trunks, not only of oaks, but also of other trees, often found, unconsumed and fresh amidst the strata of this earth'.

Anderson (1967) Vol. 1 p. 74, whilst admitting that the locality round Merse was covered by heavy deciduous forest in Roman times — 'possibly with islands of Scots Pine and Birch on the glacial sands of the Tweed Valley, but more likely carrying Oak-Birch forest' — goes on to say that, 'the Merse itself was probably open grassland owing to the dry climate'. The ecological and stratigraphic evidence for such a statement is, however, slim.

Dumayne (1992) studied pollen stratigraphy from a number of sites in North England and the South of Scotland, including a Berwickshire site at Dogden Moss, Greenlaw.

Between 700-500 B.C. total arboreal pollen was still in excess of 75% but some grassland weed species were evident. The next three centuries saw a marked decline in total tree pollen, with grass pollen rising to 50%. There is clear evidence of arable and grassland weed species and cereal pollen assumes an obvious proportion. Although it remains at less than half the total pollen until medieval times, it is clear from its presence and those of the arable weeds and grassland species, that the 'wildwood' was waning long before Roman occupation.

Neolithic to Iron Age:

The human invasion of Berwickshire must in part have been dictated by its southern position approximate to the post glacial shallows and marshes of the Southern North Sea basin and Rhine delta. A reasonable climate, accessible, if small, estuary and the

ease of traversing the Yorkshire-Berwickshire coastal 'plain' might also encourage south-north movement. Atkinson (in Piggot, 1962) tries to assess the relative density of neolithic population using frequency of finds of leaf-shaped flint arrowheads on arable areas of eastern Scotland. The Tweed basin is similar to Kincardine but alone holds more than Angus, Tay, Lothian and Forth put together. Longbarrows occur in the District. The palynological evidence of a forest cover in which Birch was an important component — at least along the Lammermuir area — may also support the idea of assisting early human depletion of the woodland resource.

Bronze Age artefacts are relatively few but, as Duncan (1974) points out, bronze metalwork is suitable for weapons and adornment but not for efficient cultivation implements. The population too, in both Bronze and Iron Age of the first millennium B.C. must have been small with only localised reduction of high forest timber, increasing as the socketed axe-head appeared and the late Bronze Age introductions of fortification laced with major timbers, together with, probably native, palisade settlements of Northumberland and the Tweed valley. In the uplands cairn-fields and occasional 'lynchets' started to make their appearance, but Iron Age culture was generally slow to come to the Borders. The Celtic invasions pre-date the Roman invasions and the large number of tribal fortlets — as for example those on Coldingham Moor where ten occur in a 1.5 km radius (Baldwin, 1985) — imply an expanded and settled organisation by the Brythonic Votadini with probable extensive clearance for pasture.

Roman:

The Roman occupation in Berwickshire probably had less effect on primary woodland than in neighbouring Roxburgh and Ettrick (q.v.) the main routes being coastal, e.g. the Devil's Causeway to Berwick and (possibly) lesser routes north to Edinburgh and west to Cappuck fortlet and Dere Street — and hence were already open scrub for part of their way, although Tacitus and other Roman writers do occasionally refer to the difficulties of passage across some of the wooded coastal deans. Dere Street, to the west, was apparently the most utilised route along which forest clearance might have occurred. Anderson (1967) repeats Galen's assertion that Roman soldiers were constantly employed in cutting down woods, draining marshes and making military ways through bogs and mosses, but the former's calculation on the extent and scale of Roman forest clearance is wholly conjectural and unsubstantiated except perhaps round the main routes and settlements of occupation.

Anglian:

Carr (1836) refers to Press (near Coldingham) as 'the name derived from the Ancient British "Preas" meaning thicket or wood. Yet there is no mention of this in the primary lists of woodland at the time of William the Lion'. This is scarcely surprising since the intervening period was a fairly active one. The Anglian invasion lies around the mid 6th century (Redford, in Piggot, 1962; and Tuck, 1979). The introduction of better felling and ploughing techniques were undoubtedly to spell the death-knell of the ancient Berwickshire woodlands, and the halls and settlements surrounding the District at Doon Hill, Dunbar, Yeavering (Northumberland) and Sprouston (Roxburgh) are testimony to an expanding and highly organised agrarian and cattle rearing society of developing wealth, although this wealth was still measured by grazing stock rather than arable land. Duncan (1974) underlines the continuity of the Celtic and Anglian agrarian development and points out the evidence of the discrete lowland estate which continued right up to the 12th century with its *caput* and focal and dependent *tuns* or hamlets and rented ground and peasantry exploited by Church or Thane. The emphasis always is toward agriculture rather than forest pastoralism.

It was during this time that Christianity came and with it concentrated ecclesiastical power and improved land management. Coldingham Priory founded in the 7th century — three centuries before the French orders established the great Border Abbeys — became the major force for change in the District.

That the Danish and Viking attacks of the 9th and 10th centuries left Berwick (almost) unscathed is remarkable considering their effect on Cumbria, Westmorland and South Northumberland. Perhaps the high cliffs deterred serious incursion. However, what raids there were, must have contributed to further woodland decline if only on the southern and eastern edge, for building timber replacements.

11th-12th Centuries:

Edgar, King of Scots in 1095, made extensive grants of land in Berwickshire to St Cuthbert's Church, Durham, where strict Benedictine rule was restored in 1083, 'with their lands, woods, waters. . . .' The Charters refer to Old Cambus, Lumsden, Swinewood, Reston, Ayton, Prendergest, Paxton and Swinton and other areas in S.E. Berwickshire. The grants were confirmed by Alexander (1107-24) and David (1124-53). The influence of the church was considerable with subsidiary chapels as far apart as

St Abbs, Eyemouth, Ayton, Reston, Nenthorn, Nesbit, Ednam, Lamberton, Swinton, Edrom, Kimmerghame, Earlston, Stichill and Smailholm (Raine, 1853 and Lawrie, 1905).

Gilbert (1979) considers that the name Swinewood, mentioned in this and later Charters, suggests that the English practice of collecting 'pannage' for pigs grazing on mast in the woods which dates back to the 7th century, was thus current in Scotland before the 12th century.

By 1135 there was a monk at Coldingham to look after the rights of St Cuthbert. He was at law over a wood with Luiff of Swinton. Within a decade Coldingham was a full priory with endowment of the extensive royal demesne of Coldinghamshire (Duncan, 1975).

In 1162 or thereabouts a surviving manuscript provides that the brethren of the hospital in Lauder — then, but not now, in Berwickshire — might send their ploughs to the Lord's smith. Duncan (*ibid*) considers that the passage might imply the use of wheeled plough associated with communal eight-ox plough teams, further evidence of the early scale of arable cultivation.

A Charter of 1165-1171 records the Pease Burn as Akesideburn indicating woodland at least on that site.

Raine's account of the 12th century (CCXLV) tells of four cartloads of stakes and rods taken annually at Quixwood, subsequently bought up by the landlord at four marks. The tenant might only take wood as the priory (Coldingham) allowed. But as Duncan (1975) points out, this was cheap compared with prices in England and France and might suggest that, away from the towns, wood was not such a precious commodity. But stakes and rods might be common enough where scrub and coppice growth prevailed even in the absence of high canopy.

In discussing the family of Renton, Carr (1836) writes: 'The office of forester over the woods of the Priory devolve upon them so early as the reign of William the Lion (1165-1214) and, this being hereditary, led them to relinquish the name Renton and assume the surname Forester'. In a footnote he continues: 'the woods belonging to the Priory over which this family were appointed foresters were those of Greenwood, Reston, Brockholewood, Akeside, Kirchesdene Wood, Harewood, Denewood, Swinewood and Houndwood'. This is the list from Charter No. 45.

Carr also mentions taxes including: 'for every waggon load of wood, four pennies . . . for every log of Oak drawn with oxen, four pennies and Wood Hens dues according to custom. . . .'

Other religious houses established during the century and tokening further land development were Coldstream, Abbey St Bathans, Eccles in 1156, and Triefontaines (Chalmers, 1887).

Before 1126 (David I), Charter No. 16 mentions woods in Reston, Ayton, Paxton and Swinton and Grant No. 30 of Malcolm IV (1153-65) confirms the Priory, its copse and warren on certain lands. Anderson (1967) states that all the woods and adjoining wastes of William and Alexander's grants were to be 'free warren and free forests', under the charge of the Priory, and 'no one without licence from the monks could take any timber or beasts of the wood, hunt or cut timbere' (Anderson, 1967 and Sinclair, 1795).

13th Century:

Alexander II confirmed William's grant (Charter 60) but 'Kirchesdenewde' has become 'Chichedeneswde' which Anderson considers may be Chirnside.

Anderson (*ibid.*) relates the contents of a charter of around 1249 which concerns a grant to Eva and Maria Paxton by Sir William Lindsay of Berwick, of the right to take timber — 'estovers' (rights of usage in the forest) — in Ristonside to repair buildings. The timber was only to be taken in the sight of the forester. This may be the only record in Scotland of formal 'estovers' which is remarkable considering Earl David's — and others of the Royal House — close connections with Eastern England where estovers were not uncommon.

In another (Charter 92) William Vicar of Old Cambus was accused of trespass as a result of some cattle being within the wood at 'Ristensyde' (Reston?) in 1255. In 1266 Anderson (1967) refers to a record of pannage at Wark, just south of Tweed at Coldstream.

In 1291 Charter 67 concerns a villa of Swinewood with woods.

David de Quixwood, local owner, granted lands of the moor of Old Cambus from the top of 'Bertolvisakisklow' to 'Akesideburn' from the road of 'Aksidecloss' westwards to 'Aksideburn': 'all my land with wood'. He reserved the rights of as much bark and brushwood ('pelo et virga') as he might require. He also made provision for his brother in lands scattered at 'Langedales', 'Stele', 'Heseldale', 'Midehop', in 'Oggeslaudale' at the wood, under 'Dailing' in 'Langtofts' and at 'Brerilau' rood, Raine (1852), Duncan (1975). Duncan has considered the names of these grants which show Oak, Elm, Hawthorn and Hazel 'flourished in places sheltered from salt winds of the North Sea'.

Duncan (1975) referring to Raine and others, traces the widespread development of arable and large open field areas within the lands of Coldingham Priory through the 13th century but obviously derived from 'a continual process of clearing or breaking out new land over many centuries . . . the product

of assarting by individual or group effort to accommodate rising population . . . by successive accretion of cleared land to the village territory at places suitable for arable, laws (hillsides), dales, cleuchs and haughs'. By 1300 the village of Old Cambus alone — topographically perhaps one of the least favoured of the Priory lands — had over 600 acres of arable, presumably here, as elsewhere, backed by large tracts of 'waste'. Coldingham had 1000 acres + 1500 acres peasant arable. The Swinton demesne had 1100 acres of arable (12 ploughgates) plus peasant lands, some of which would be cultivated. At Fishwick were 200 acres of demesne with 500 acres of peasant arable. And so with other priory lands: Edrom, Renton, Upper and Nether Ayton, Paxton, Lamberton, etc., with still others, e.g. Lumsden, Flemington, Swinewood and Ayton at ferme.

The Priory Survey of 1300 gives annual value of its many meal mills as 8-10 marks each and Duncan (1975) suggests that enclosure of the moor at Renton may have been an early attempt to sustain pasture otherwise destroyed by pressure of stock as the amount of arable actually constrained pastoralism.

By 1293 the figures of rental, demesne, ploughgates, calves and lambs, wool and lambskins for the nunnery and Priory lands in Berwickshire exceed the totals for the great abbeys of Kelso, Melrose, Newbattle and Dryburgh together! It is significant perhaps that the century initiates a marked decline in references to native timber and wood products in Berwickshire while agricultural records and occasional reference to 'waste' increase. Fraser Tytler (1845) in his description of the 'ancient state' of the nation (Vol II) makes no mention of any forest or wood in Berwickshire although he gives those of other counties.

14th Century:

Around the turn of the century there was a park near Mordington, called Duns Park, recorded by Barbour (in: Skeat, Book 17, 1894) which sheltered the Scots army, an indication of the strategic importance of enclosed woodland for cover and presumably timber and game supply.

Anderson (1967) records a village and fields at Swinewood ('Swynwde') in 1331 no doubt as a result of some clearance of the forest. Duncan concurs with this view of a true 'assart' of cleared woodland to provide the five ploughgates of demesne, four of peasant land and one at ferme, but considers that the assart process was already firmly in train a century before.

Hardy (1878) in the discussion of numbers of Border flocks in early times uses figures from the *Rotuli Scotiae* which include c. 2000 at Coldbrandspath in the early 14th century.

In December 1317 Bruce led the Scots army to camp at Auldcambus. Edward II appealed to the Pope who duly appointed a truce on pain of excommunication. Adam Newton was despatched by the Papal legates from the Franciscan friars at Berwick to read the 'bull' only to find the Scots king and his army busily engaged in a wood near the village of Old Cambus felling trees and preparing engines for a siege (Carr, 1836).

By 1300 the Priory lands and 'house' at Coldingham were well established and mention is made of 'peats and brushwood'. At Auldcambus was the manor place of the Prior and 220 arable acres with seven acres of meadow and peats 'for the house'. The quantity of wood and muir is stated to be unknown (Thomson, 1908. Appendix No. XVI).

By the 1340s records of large numbers of 'Estland' timber begin to appear in accounts and in seizures at Berwick (*Exchequer Rolls of Scotland*).

In this century too appear the first (deduced) records of planting, for the Statistical Account from Westruther Parish instances some 'planes' (Sycamore probably) computed to be 500 years old making the planting date in the 1330s.

There was the undoubtedly major destruction of remaining Border — and Berwickshire — woodland in the cessation of Anglo-Scottish truce (February 1384) and its aftermath the following year with the landing of the French, the joint attack on the Northumberland-Berwickshire border, followed by John of Gaunt's (Duke of Lancaster) counter-attack, and the Scots policy of scorched earth as they retreated. Nicholson (1974) says that the French allies were dismayed by this Scots policy, whereas Froissart in his *Chronicles* (Macaulay, 1895) says that many 'knights and squires complained of the timber they (the French) had cut down and of the waste they committed to lodge themselves'. Fraser Tytler (1895) and Anderson (1967) both quote the English historian Knighton who describes the English destruction of Border woodlands: '... employed in the destruction so immense that the stroke of 80000 hatchets might be heard resounding through the forests, whilst the fire was blazing and consuming them at the same moment'. But Volume III of the *Exchequer Rolls* indicates that Lancaster did as little damage as possible out of a sense of gratitude for prior hospitality shown by the Scottish Court. No doubt all parties were in some respects to blame.

15th Century:

According to Gilbert (1979) the Forest of Dye and Handaxwood in the lands of March are probable hunting reserves by the 15th century. The latter named wood is often taken to mean that

the growth was light enough to be cleared with a hand-axe. Early spelling of the name, however, appears as 'Haindaikiswde' and might rather imply a 'hained' or enclosed fragment of oakwood possibly as protection against grazing. Forest of Dye appears in the *Exchequer Rolls* as Crown property in 1451, 1454 and 1458 (see Anderson, 1967) and waste was committed in it in 1459 by which time there were 'fermes' there held by Patrick Cockburn. In 1490-1507 the forest passed to the Earl of Bothwell but there is no indication of the tree cover by then.

Further east, Fraser (1885, Vol I) records a park and woods at Cockburnspath, around 1400. James II created a hunting park or reserve there in 1454 (*Exchequer Rolls VI* and Gilbert, 1979) but this could have been on virtually treeless 'waste'. By 1457 all these lands were let. In 1458/9 the Baillie of the Earl of March paid one Gilbert Home, for killing ten wolves in Cockburnspath which perhaps implies some forest cover but also underlines the importance of protecting woods from grazing stock (*Exchequer Rolls VI* and Gilbert, 1979).

John Hardynge's *Chronicle* (c. 1450?), quoted in Hume-Brown (1891) reports to Henry VI as follows:

'Then send an hoste of footmen in
At Lamesse next, through all Lawdendayle (Lauderdale)
And Lammermore woddes and mosses over rynde. . . .'

So there were still some Lammermuir Woods at that time perhaps.

Charcoal was obtained from the Royal wood at Cockburnspath in 1486, and in 1513-14 there was still a keeper of 'the Woods of Cockburnspath' (Anderson, 1967).

Elsewhere, William Douglas, Earl of Angus and Lord of Liddesdale, was appointed special protector and defender of Coldingham Priory and, as a result, he got rentals from Brockholeswood, Deanwood and Harewood (Carr, 1836). In a footnote Carr adds that in March 1429 these lands were let to Thomas Atkynson of Buncle and his wife for 15 years, the tenants and their servants 'dwelling within sayd woods and lands being allowed reasonable estiment of fewell of fallen and dede wood, for cutyn wast of whilk woode the whilk may serve for timber by the deliverance of the Prior of Coldingham or his officer. Also tymber for bygging of new housys and repairing them and also for plewys and harrows for tilth'. Neither the tenants nor their servants 'sall hold nor have na swyne nor gays and sall be sworne to be lele and trewe to the keeping of the said wod warren and venison for the tyme that they sall dwell therein'.

This passage from the Coldingham charters does begin to hint at the more rigorous enforcement of control and the forest

laws. The 13 manuscripts used to determine the Forest Laws include one called 'Monynet' — probably Monynut at the head of Whiteadder, parts of the lands of March (Thomson, 1844).

16th Century:

In the *Acts of the Lords of Council in Civil Causes* a case is related at February 1500 with regard to 'distruccione an doune cutting' of the 'dauidwod of Polwarth'. As a result it was 'ordanit to keep it unwasted conformand til the law'. Parts of this wood may still be in existence.

Just across Greenlaw Moor from Polwarth, James III granted the lands of 'Kettilschele' in Dye, in free forest to the Earl of Angus, and in 1522 these were ceded to David Hume (Anderson, 1967), but there is no indication as to their wooded condition.

About this time started the succession of foreign touring chroniclers whose descriptions enliven the contemporary portraits of Scotland's landscape. Estienne Perlain toured in 1551/2 and perhaps reveals something of the state of woodland when he says: 'In this country there is much more broom, and the people do not warm themselves with wood but with coals' (Hume Brown, 1891).

Fynes Moryson, in 1598, travelling from Berwick to Ayton, Dunbar, Haddington and Edinburgh describes the country as being 'fruitful of corne, but having little or no wood'.

Carr (1836) also mentions John Stuart, son of James V, in a plot to rob David Home at Wedderburn at Kelloe during which 'some [men] hid themselves among whin and broom'.

However, some woodland must have remained. A feu charter in the Coldingham or Ayton area and dated June 1576 by Robert Logan to James Bower mentions 'broom, forests, woods and green trees. . . .' (Thomson, 1908, Appendix XXXVII).

Earlier in 1507 'forestarstedis' went with Huntly Wood — not now in Berwickshire. These stead and woods were revoked from Alexander Lord Home, found guilty of treason, in 1535, but were subsequently restored to George Hume under Parliamentary ratification in 1540. These Huntly woods between Gordon and Earlston remained around the Second World War.

It was towards the end of this century that Timothæus Pont conducted his surveys for the maps which subsequently appeared in Blaeu's *Atlas* — the earliest direct source used for this inventory.

17th Century:

Whyte (1979) discusses the Scottish lowland landscape in some detail, drawing more from the accounts of early travellers. He underlines comments on the lack of enclosures and the general

absence of woodland and goes on: 'The landscape of Lowland Scotland was, then an open one without trees to break the monotony and, in arable areas, without hedges or dykes save round farmsteads and patches of meadow . . . in such a scene it was hardly surprising that the houses of the landowners should have stood out so prominently emphasized as they were in many cases by clumps of trees, usually the only ones in the landscape'.

Whyte also gives the forester's role as protecting the woods by maintaining the enclosures to protect them from browsing animals, and by taking this action against people found cutting timber without authorisation. He considers that one of the more common offences of damage to owner's property dealt with by the Baron Courts of the time, was the cutting of green timber and refers to the Court Book of Stichill on the Berwickshire-Roxburgh boundary.

William Brereton travelled north from Berwick in 1636 past Ayton on to Coldingham Moor, ' . . . there is a mighty want of fire in these moors; neither coal nor wood, nor turf; only they cut and flea [flay] top-turves with linge upon them' (Hume Brown, 1891).

In 1669 James Brome going north from the eastern border says: ' . . . out along from March into the Scottish Sea and having many hills on it, and little wood . . .' and so on. Perhaps Thomas Kirke's report is most poignant; 'Woods they have none, that suits not the frugality of the people, who are so far from propagating any, that they destroy those they had. . . .' although as Hume Brown says, 'Kirke is a splenetic and perverse observer!'

Elsewhere Kirke also goes on: 'There are several pretty houses by the way and above every house a grove of trees, though not one tree elsewhere, which sets them off mightily'.

Donaldson (1965) says of the time: 'It seems clear that the Borders were generally bare of trees. . . .' Skene (1729) quotes letters from a Cromwellian soldier in Scotland in 1631 in which it says that 'between Berwick and Edinburgh [are] few or no trees either for fruit or shade unless it be about a great lairds house'. Skene himself saw no natural wood on Tweed. Thus for the most part the 17th century lowlands including Berwickshire, were as Whyte states: 'a desert of open field cultivation'.

In 1637 the Earls of Lauderdale sent to Campbell of Glenorchy for fir seeds — the beginning of a new set of problems for the ancient woodlands.

18th Century:

The maps of the 1700s confirm Whyte's view but the Union of Parliaments at least gave sufficient stability to permit initiation

of estate plantings which eased a little of the relentless pressure on the remaining woodland fragments.

The *New Statistical Account* for Swinton Parish refers to the Crown forfeiture of the whole of the Swinton Estates at the Restoration when Charles II granted them to the Duke of Lauderdale. All the trees were said to have been cut except one Ash (which blew down in the opening decade of the 19th century).

An unknown traveller from Berwick in 1704, quoted in Hume Brown (1891), repeats the description of the moors around Coldingham, ' . . . commonly over a hard way except on some moors and heaths, that are so strangely rotten and barren that they bear only a sort of moss and some gorse, ling or furze. . . .' Macfarlane's *Geographical Collections* include a description of Berwickshire or the Merse probably written around the last half of the 1600s or shortly afterwards. Most of the woodland references are to parks, policies and new plantings round large houses and the author(s) give no indication of any woodlands in the Lammermuirs although mention is made of the western woods in Lauderdale and Tweed and at Huntly — now in Ettrick and Lauderdale q.v. — and also those at Longformacus, Langton, Renton, Haw-wood (Houndwood), Penmouhshiel (Penmanshiel-Pease). The latter is described as 'considerable'. Pennant's tour around 1749 covered the Tweed at Berwick 'westward for a considerable way up the country, but its banks were without any particular charms being almost woodless'.

For the parish of Coldingham the Old Statistical Account's author (Rev. John Renton) speaks of coal being used as fuel 'although peats and turfs were the principal fuel used in this parish from the earliest times'. The account goes on: 'there are a good many natural woods near the head of the Water of Eye. They consist chiefly of Oak, Hazel and Birch. Some parts of these woods are let to tanners who peel and carry off the bark of the Oak trees and sell the timber to farmers. The brushwood and loppings are bought for fuel'.

J. F. Bell writing on Agriculture of the same area (in: Thomson, 1908, p.277) says: 'About the middle of the 18th century and afterwards considerable areas of land were reclaimed and brought under cultivation. Trees were cleared off, heather and gorse burned. . . .'

At the end of the century this agricultural development spawned the County Agricultural Accounts in which the following description is given by Lowe (1974): 'There is not much natural wood in the County. About 200 acres may be the upmost extent. It is mostly dwarfy and not seemingly in a thriving state,

which cannot easily be accounted for probably the allowing of sheep to pasture in the woods soon after being cut or haggered, is hurtful to the growth of it'. He continues, 'Most of the gentlemen's seats in the county are decorated with pretty well grown trees consisting of Oak, Ash, Beech, Elm, Poplar, Chestnut, Larches, Scotch and Spruce firs'. In a small note Lowe also refers to the decline in tanners locally since 'the American War' which might have had a bearing on the decline of coppice tan-bark management in the haggered woods.

In the Appendix to Lowe's *Account*, Arthur Bruce mentions Penmanshie Wood as being of 'considerable extent' — 100 acres 'chiefly of Oaks about half of which have been cut since 1750 but none since the last 10 years, and the remainder are as old as the present century'.

The distribution of the core areas of ancient woodland recorded in this Inventory are plain to see on the maps of this century (18th) following on from Blaeu and the written and botanical record extant today.

19th Century:

The 19th century saw the major strides in estate planting and the development of the detailed site and species recording by the Berwickshire Naturalists' Club from 1831. Later the advent of the large scale Ordnance Survey maps and records gave a clear account of woodland distribution and type. Carr (1836) having listed the Coldingham Priory woodlands along the Eye in the old charters of William the Lion says: '. . . of these there are still considerable remains. The precipitous banks of Pease and other rivulets at the western extremity of the district were then also densely wooded and still continue so'. The *New Statistical Accounts* give c. 100 acres of natural woodland in Cockburnspath parish, 25 acres at Earlston, 16 at Legerwood, 50 at Westruther and 300 at Eyemouth. While the latter two may be an overestimate, these figures correspond well with the cartographic, botanical and entomological evidence available now.

Bell's account of agriculture (in: Thomson, 1908) includes a passage which sets the scene: 'Before the Shire was broken up by cultivation there is reason to believe that it was covered chiefly by oak (*Quercus robur*), Hazel (*Corylus avellana*) and Birch (*Betula alba*) much the same as Greenwood and Penmanshie Woods appear at the present day. In more recent days comparatively large areas have been planted with the many varieties of the coniferae order — Scotch Spruce and Larch predominating'.

Kerr's (1809) *General View of the Agriculture of the County of Berwick* gives a bleak picture which we now know to be not

strictly true: (p. 334) ‘there are no copse woods of any importance whatever in the County nor any considerable natural woods of any kind, so that nothing respecting their management can be furnished in this report. A very small number of the remains of ancient oak forests are to be found in a few places on the banks of streams among the hills, which have grown up into a kind of copse or what is termed in Scotland hag woods.

‘These are cut at different ages from 25 to 50 years old chiefly for the sake of their bark, which is sold to tanners; and any measurable trees are sold to farms, joiners, mill wrights for country purposes. The smaller wood is sold for temporary fences or fire wood.’

This direct reference to tanning wood is one of the few found in Borders Region which is extremely strange considering the important place the Region had in the production and treatment of sheep, cattle, goat and wild animal skins. ‘But the insignificant extent of these and the unfrequent recurrence of their sales do not admit of recording any circumstantial details concerning them, which would be altogether uninteresting and uninstructive. No hoops, poles, hurdles, faggots or charcoal are produced from them. As they almost exclusively grow upon steep banks, they are generally fenced to allow them to grow again; and empty spaces are often filled up with young forest trees.’

20th Century:

Most of the ancient and long-established woodland cores identified in the post-1700 cartographic and bibliographic records remain in this century.

Both World Wars took a toll on the mature woodlands but often coppice regrowth or replanting, at least in part, with native species permitted continuity of woodlands on these sites.

Far more serious have been the consequences of conifer conversion (Upper and Lower Whiteadder, Cockburn, Preston, Longformacus, Aikieside-Penmanshiel, Greenwood, Brockholes, Press, Dunglass, Langton, Birgham, Ayton, Foulden, Drakemire, etc.) and the clearance or insidious reduction by grazing as post-war agriculture developed (Blackburn, Flass, Upper Whiteadder, Eye Water, Langton, Tweed). Depredation by roads development, as well as by rabbits — especially on the drier eastern sandstone soils — are also key influences, with Roe Deer now also a serious constraint on regeneration.

In the mid-1970s Nature Conservancy Council’s Phase 1 land-use and wildlife habitat distribution survey gave the broad pictures as summarised in Table 2 overleaf.

This clearly indicates the similar level of retention of primary

TABLE 2
WOODLANDS IN THE DISTRICT OF BERWICKSHIRE AT JULY 1975

Woodland Category	Acres Hectares	Category as % of Total Woodland Area in District	Category as % of District of Area	District Category as % of Total of the Categories in Borders by Area
1. Semi-natural native broadleaf woodland over 1ha (2.47 acres) with some evidence of continuous woodland cover.	533 215	4.5%	0.25%	32%
2. Broadleaf or mixed fragments, woods and policies with less or no obvious evidence of continuous woodland cover.	3539 1432	30.0%	1.5%	25%
3. Coniferous plantation up to 12ha (30 acres)	3145 1273	26.6%	1.4%	20%
4. Scattered deciduous (native) trees in open habitats	0	0	0	0
4p Parkland: policy trees in permanent grassland	460 186	3.9%	0.2%	24%
5. Native Scrub — up to 4.5m (15') but excluding young woods, copice or <i>Ulex/Sarrothamnus</i> .	15 6	0.12%	0.006%	6%
6. Conifer plantation over 12ha (30 acres)	4126 1669	34.9%	1.9%	4%
Total Area of Deciduous and Mixed Woodland Types (Categories 1, 2, 4, 4p, 5)	1839ha	38.5%	2.0%	25%
Total Area of Conifer Types (Categories 3, 6)	2942ha	61.5%	3.3%	6%
Total Area of Woodland in District	4784ha			

ancient woodland relative to those areas in Roxburgh and Ettrick and Lauderdale Districts. The percentage of conifer afforestation is however markedly less than in the other Borders Districts. The decline of parkland in the first 70 years of the century is also a prominent feature, as agricultural practice and mechanisation intensified. Unexpected in this wildlife survey was data from the botanical records which showed that many of the steeper woods, for example on Lower Whiteadder downstream of Allanton, retained good examples of the flora and vegetation communities typical of long-established or ancient woodlands. These had escaped the attention of the early map makers probably because of the scale, map distortion and the lack of strategic military importance.

Within the district the ancient woodlands notified as Sites of Special Scientific Interest cover the range of geological and soil types although the carboniferous rocks and soils are as yet poorly represented. They are as follows:

Abbey St Bathans Oakwoods (Godscroft to Aikieside)	Silurian
Pease Dean (Aikieside)	Silurian/Upper Old Red Sandstone
Langtonlees Cleuch	Upper Old Red Sandstone

Many of the policy woodlands are long-established on the sites of ancient woodland and although usually highly disturbed some sustain a reasonable flora with associated insects and birds, e.g. *The Hirsel SSSI*. Enclosure of parks round major houses and castles from the cartographic and botanical evidence has often sustained fragmentary relics of woodland vegetation, e.g. at Duns Castle with an ancient enclosed park, Dunglass, Paxton, Milne Graden and Spittal.

Most of these lowland woods are Ash-Wych Elm types with varying amounts of Oak changing to Sessile Oak with Birch, Hazel and Rowan as one ascends. Alderwood is virtually extinct as elsewhere in the Region. Truly sub-montane scrub is also extinct in the District and Hazel scrub is likewise almost absent, although small patches of Juniper, Bird Cherry and Aspen still occur and wind pruned Oak, Blackthorn and Hazel with Rowan, Aspen Gean and Hawthorn occur sparsely on the steep coastal cliffs and deans. Willow Carr, as a secondary development on basin and valley mires with associated Birch and Alder, is found extensively at Gordon Moss — now the largest semi-natural woodland in the entire Borders Region. Other more modest examples occur at some of the basin mires of the Merse

(Bishop's Bog, Horse Bog, Bunkle, Middlestots) and to a lesser extent elsewhere (Coldingham Moor, Drone Hill).

The importance of the woodland riparian ecotone-edge is obvious in Berwickshire as in the other Borders Districts but Berwickshire holds more considerable areas of neutral to mildly basic grassland, interspersed with ancient and long-established woodlands, e.g. along Whiteadder. This habitat relationship is not so well developed elsewhere in the Region except in South Roxburghshire and species dependent on this ecotone, such as Green Woodpecker and various insect groups do well here.

REFERENCES

- Anon. (1818). *North of England and Scotland in 1704* (quoted by P. Hume Brown, 1891, q.v.).
- Anderson, M. L. (1967). *A History of Scottish Forestry*, 2 Vols edited by C. J. Taylor. Thomas Nelson: Edinburgh.
- Atkinson, R. T. C. (1962). Fishermen and Farmers in: *Piggot*, 1962, q.v.
- Baldwin, J. R. (1985). *Exploring Scotland's Heritage: Lothian and Borders*, Royal Commission on the Ancient and Historical Monuments of Scotland: HMSO, Edinburgh.
- Brown, P. Hume (1891). *Early Travellers in Scotland*, David Douglas, Edinburgh (reprinted: Mercat Press, Edinburgh, 1978).
- Carr, A. A. (1836). *A History of Coldingham Priory*, Adam and Charles Black, Edinburgh.
- Chalmers, G. (1887-1902). *Caledonia: or an Account, Historical and Topographic, of North Britain*. New edition, 8 vols, London (also quoted by Anderson, 1967 q.v.).
- Connolly, A. P. (1957). The occurrence of seeds of *Papaver* sect. Scapiflora in a Scottish Late Glacial Site. *Veroftentlichungen Geobotanischen Instituts*, Zurich, 34, 27-29.
- Connolly, A. P. and Dickson, J. H. (1969). A Note on a Late Weichselian *Splachnum* capsule from Scotland. *New Phytologist* 68, 197.
- Donaldson, G. (1965). *James V-James VII*, Edinburgh History of Scotland: Vol 3, Oliver and Boyd, Edinburgh.
- Duncan, A. A. M. (1975). *The Making of the Kingdom*, The Edinburgh History of Scotland, Vol 1, Oliver and Boyd, Edinburgh.
- Dumayne, L. (1992). *Late Holocene Paleoecology and Human Impact on the Environment of North Britain*, PhD Thesis: University of Southampton.
- Durno, S. E. (1967). *Scottish Woodland History Since Boreal Time as revealed by Pollen Analysis of Peat*, unpublished. PhD Thesis, University of Edinburgh.
- Fraser, S. (1885). *The Douglas Book*, Edinburgh, 4 vols.
- Fraser Tytler, P. (1845). *History of Scotland*, Wm Tait, Edinburgh, 7 vols.
- Gilbert, J. M. (1979). *Hunting and Hunting Reserves in Medieval Scotland*, John Donald, Edinburgh.
- Godwin, Sir H. (1952) (per comm). Two untitled pollen diagrams from Whirrig Bog, Berwickshire.
- Hardy, J. (1879). Local Documents: V. Cockburnspath 1389 — Number of Border Flocks in Early Times.
- Kerr, R. (1809). *General View of the Agriculture of the County of Berwick*, Constable and Co, Edinburgh.
- Lawrie, A. C. (ed.) (1905). *Early Scottish Charters Prior to 1153 A.D.*, quoted by Anderson (1967) q.v.

- Lowe, Alex (1794). *General View of the Agriculture of the County of Berwick*, Millan, London.
- MacFarlane, W. see Mitchell (1905-6).
- Mackie, A. O. (1988). The Human Setting: Early Community in the Borders. In: Allan, R. and Candlish, I: *The Scottish Borderland — The Place and the People*, Border Country Life Association.
- Mannion, A. M. (1979a). A Pollen Analytical Investigation at Threepwood Moss, *Trans Botanical Society, Edinburgh* 43, 105-114.
- Mannion, A. M. (1979b). Chemical Analyses of a Peat Profile from Threepwood Moss, South East Scotland. *Chemosphere* 8, 233-242.
- Mannion, A. M. (1982). Palaeotological Research in the Scottish Borders. *History of the Berwickshire Naturalists' Club*, XLII, (2), 1982, Berwick.
- Mitchell, A. (ed) (1905-6). *MacFarlane's Geographical Collections*. W. MacFarlane: *Scottish History Society*, 3 vols, Edinburgh.
- Nature Conservancy Council (1991), Badenoch, C. O. and Walker, G. *Inventory of Ancient, Long-Established and Semi-Natural Woodland (provisional)*. Berwickshire District, NCC, Peterborough.
- Nicholson, R. (1974). *The Late Middle Ages*, The Edinburgh History of Scotland, Vol 2, Oliver and Boyd, Edinburgh.
- Pennant, T. (1790). *A Tour of Scotland*, 2 vols, London.
- Piggott, S. (ed) (1962). *The Prehistoric Peoples of Scotland*, Routledge Kegan Paul, London.
- Radford, C. A. R. (1962). From Prehistory to History, in: Piggot, 1962, q.v.
- Raine, J. (1852). *History and Antiquities of North Durham* (Appendix), London.
- Sinclair, Sir J. (ed). *Statistical Account of Scotland*, Edinburgh, 1970s.
- Skeat, W. W. (ed) (1894). *The Bruce* by J. Barbour.
- Skene, G. (1729). As quoted by Anderson (1967).
- Switsur, V. R. and West, R. G. (1973). Natural Radiocarbon Measurements, University of Cambridge; XII Radiocarbon, 15(3), 534-544.
- Thomson, A. (1908). *Coldingham Parish and Priory*, Craighead Bros, Galashiels.
- Thomson, T. (ed) (1844). Scottish Text Society, 2 vols, *Acts of Parliament of Scotland*, Edinburgh.
- Whyte, I. (1979). *Agriculture and Society in Seventeenth Century Scotland*, John Donald, Edinburgh.

PLANTING A COPSE

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Our experiment may interest members, especially those who, as individuals or community representatives, may know of ground which could be enhanced by the introduction of trees or hedging.

Our ground lies adjacent to Langton Parish Church in Gavinton. Behind the church, in its north-east corner, a small, one-storey church hall was built in 1993. This lies just beyond our north-west perimeter.

Before building commenced, some trees — as few as possible — had to be felled. The prevailing winds have since uprooted or damaged others, which lacked support from their neighbours; so our land is more exposed to the north-west wind. In the night the dustbins career away; during the day, the washings fly off the line.

We decided to plant a strip of woodland along our paddock, not just for protection but also for our pleasure and that of others, particularly visitors to the church and graveyard.

I heard from our Community Council secretary that a grant could be made available but only learned the procedure pragmatically. Perhaps this article will encourage others.

We consulted David Roger, Arboriculturist, Mossyrock Landscaping, Greenlaw. You may recall that the Club visited the family firm of Tree Growers at Stichill on a summer's day in 1994.

My husband, Forrest, is a past-president of TRADA (The Timber Research and Development Association), so by name and calling, it behoved us to do a 'proper job'.

With David, we calculated that a strip 33 metres long and 8.5 metres wide should be planted -- an area of 272 square metres. Of course, this is a small area in the reckoning of large landowners but these grants are usually only awarded for areas of under a quarter of a hectare (i.e. approximately a sixth of an acre); or for hedging. (Each year 5,000 miles of Britain's hedgerow disappear — and the insects, birds and animals they support!')

David advised that we apply for a grant to Borders Regional Council which administers the scheme in association with the Farming and Wildlife Advisory Group (FWAG). It is funded by a partnership of Borders Regional Council and Scottish Natural Heritage (S.N.H.).

We needed 5 rows of trees with 12 in each row — not planted geometrically rigid but in a natural-looking formation with about 2 metres distance between the trees; in fact it was 64 saplings. Required also was strong, Rylock fencing with two wire and one barbed row because during the Spring there are eight rams grazing in the paddock or the occasional pony. There is already secure fencing along the garden edge with almost rabbit-proof netting which was better left intact so a stile of local pine which was to hand, was to be erected.

The site is part of Gavinton Conservation Area. Naturally the scheme promotes plantings of indigenous species.

Incidentally, do visit a similar corner of saplings established, with an informative plaque, on the small triangle of ground to the west of the metal pedestrian bridge over the railway line as you come from Castle Terrace to Princes Street Gardens in Edinburgh! These represent species likely to have been growing there during the reign of David 1 (1124-53), when this land was used for tournaments, hawking and hunting.

Here there are:

- Quercus robur* — common English oak
- Betula pendula* — silver birch
- Pinus sylvestris* — Scots pine
- Prunus avium* — wild cherry
- Alnus glutinosa* — common alder
- Ulmus glabra* — elm

Do you see some similarity with our collection? We were supplied with:

- | | |
|-------------------------------|-------------------|
| 8 <i>Sorbus aucuparia</i> | — rowan |
| 8 <i>Betula pendula</i> | — silver birch |
| 8 <i>Malus sylvestris</i> | — crab apple |
| 4 <i>Ilex aquifolium</i> | — common holly |
| 8 <i>Corylus avellana</i> | — hazel |
| 8 <i>Crataegus monogyna</i> | — hawthorn |
| 8 <i>Larix decidua</i> | — common larch |
| 8 <i>Prunus padus</i> | — bird cherry |
| 4 <i>Laburnum anagyroides</i> | — common laburnum |

— 64 specimens in all, about 30/45 cm in height. They all needed stakes, ties and protective sleeves: a familiar feature of Berwickshire now.

Since we ourselves are no saplings, and so may not see these trees mature, around the grant-aided plot we also planted independently a border of taller specimens with eye-catching leaves or fruit. These cost about £19 each and the labour — £55.

These were:

- | | |
|--|--|
| 1 <i>Malus</i> , Golden Hornet | — yellow crab apple |
| 1 <i>Crataegus</i> , Paul's Scarlet | — a bright double-flowered thorn |
| 1 <i>Prunus: Pissardii nigra rosea</i> | — bronze-purple leaves with salmon flowers |
| 1 <i>Sorbus Asplenifolia</i> | — fern-like leaf |
| 1 <i>Ilex Aquifolium</i> , Golden King | — yellow-edged holly leaf |
| 1 <i>Corylus Avellana Contorta</i> | — corkscrew hazel (Harry Lauder walking stick) |

For the purpose of the grant, the site was inspected before and after planting — before, for suitability of site by Hugh Chalmers of FWAG and after by Kath McTaggart of BRC Planning Department for verification of species and quality of planting.

The planting was done in January 1995, which you will recall was a fine, wet month; fine, that was, for tree rooting (the month of the Paisley and Netherlands' floods).

The cost of the grant-aided exercise was £570.05. After the submission of the receipted invoice to BRC, we received a cheque for £298.75, approximately 50%.

Under the maintenance grant, again 50% of the cost of one herbicidal treatment around the baby trees will be reimbursed when this is completed in the Spring. This is to 'catch' weeds like creeping thistle, when young.

So far the copse has withstood the early 1995 gales. Already green tips are showing at 12th February within the sleeves. Under the trees I intend planting snowdrops, daffodils, wild garlic and bluebells to naturalise. A cock pheasant seems happy to regard this as his woodland territory although he is only strutting among plastic protectors.

Possibly the Club will visit Langton Parish Church in 1996, when I hope you may glance to the east to admire our fresh woodland.

In Walter Scott's *Heart of Midlothian*, the Laird of Dumbiedykes told his son, 'Jock, when ye hae naething else to do, ye may be aye sticking in a tree; it will aye be growing, Jock, when ye're sleeping.'

If you think you would like to participate in the Borders Tree Grant Scheme, contact Kath MacTaggart on (01835) 823301 ext. 428.

REFERENCE

1. Plantlife pamphlet 'Why have all our flowers gone?' by Adrian Darby, former chairman RSPB.

COAL MINES OF NORTH NORTHUMBERLAND II

SCREMERSTON TRIANGLE

J. W. Bainbridge
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Situation

The collieries under review are situated within a north Northumbrian triangle (Figure 1) with Berwickhill Colliery at its northernmost point, Felkington at the western margin and Beal Point at the eastern extremity. The Beal-Berwickhill side of the figure follows the coast. Scremerton, while not at the geographical centre of the triangle was the hub of a coal district of thin seams and indifferent coal. Outcrops of coal are numerous in the triangle, particularly on the seashore, in the coastal cliffs and in the banks of water-courses. Once found, seams must have been easily traceable from the coast at Cocklawburn south-westerly towards Felkington. The district yielded coal for upwards of 300 years and throughout the 19th century it provided a local supply for the towns, villages and farmsteads on both sides of the Tweed.

Geological series

The Scremerton Coal Group of the district contains nine coal seams that have been worked:¹

Coal	Remarks
Greenes	Found 6 fathoms below the Oxford Limestone. 30 inches thick, it was wrought for many years on the Ancroft estates.
Muckle Howgate	Situated 40 fathoms above the Woodend Quarry Limestone, it outcropped on the road from Allerton Stead, on the east side of Felkington Kiln, and at Wood End. This seam, about 3 feet thick, was worked within 200 yards of Greenwich Colliery (of 1840), near the turnpike road, 3 miles south of Berwick.
Fawcet or Caldside	Supposed to be on the Greenwich estate (Scremerton), 35 to 40 fathoms below the Little Howgate Seam, and consequently about 3 fathoms below the lower Dun Limestone that

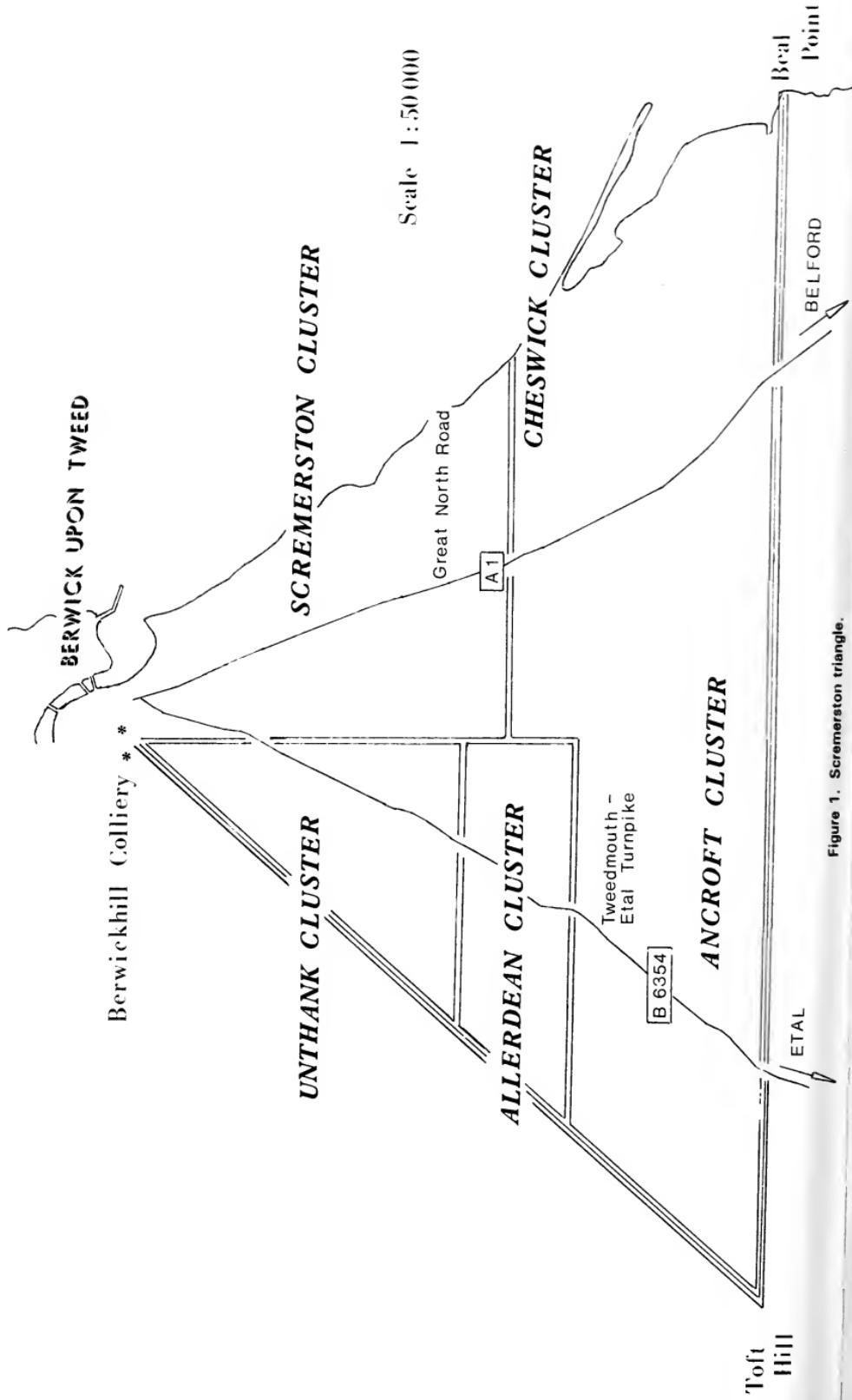


Figure 1. Scremerton triangle.

	appears on the seashore of the district. Wrought from the sea to the Unthank east boundary, a distance of nearly 2 miles. While the seam was known to be 3 feet 4 inches in thickness it was greatly diminished by a 16 to 18 inches band of stone.
Scremerston Main	As at Berwickhill, this was the leading seam of the series. Where named the Blackhill Seam its quality was inferior. Worked at Scremerston and Unthank from an early stage in the history of the field. Wrought as the Blackhill Coal at Felkington. The seam is split by a band, of variable thickness, into a top coal and a ground coal. Above the upper coal is a bed of limestone 1 foot 2 inches thick.
Stoney	Situated 3½ fathoms below the Scremerston Main Coal. Worked on the Scremerston estate, within 80 yards of the Berwickhill boundary, and on Unthank Common. The coal, from 2 feet 9 inches to 3 feet 2 inches thick, was very strong and worked large. The seam was found in a good state in the Scremerston Restoration Pit but barred-up due to its tendency to spontaneous combustion.
Bulman or Cancer	This, the Cancer Coal of Berwickhill, is 17 fathoms below the Stoney Coal. At Murton it was known as the Bulman coal but at Thornton and Shoreswood it was the Main Coal. At 5 feet 9 inches it was the thickest seam of the district, but a bad roof demanded that the top coal, of 1 foot 8 inches, be left as its support. The seam could vary from 3 feet 5 inches to 6 feet 9 inches.
Three Quarter	Situated about 18 fathoms below the Bulman coal this was a good hard lumpy coal. Although expensive to work it was wrought at Murton, Thornton, Shoreswood and Felkington. Split by a band, the top and bottom coals were each about 1 foot 1 inch thick.
Cooper Eye	Proved throughout the district it lies some 3 or 4 fathoms below the Three Quarter Seam and at Berwickhill, it varied from 2 feet 6 inches to 4 feet 6 inches; at Shoreswood, from 1 foot 3 inches to 3 feet 4 inches. Formerly called the Stoney Coal it is split by a 'macher' which would burn but left a 'ghaist' or 'skeleton'.

Wester	This, the lowest seam that has been worked in the district, lies 13 fathoms below the Cooper Eye Seam. Anciently worked at some of the rise pits in Shoreswood, and was sunk to in the working pit in 1839, but from its inferior quality was not worked. Varies in thickness from 3 feet to 4 feet 6 inches.
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SCREMERSTON

Collieries

The undulating nature of the surface of the district was favourable to a system of mining pursued prior to the development and installation of pumping engines. The coal was extracted via drifts from the face of a convenient hill, or from the sea banks, at a level that would allow the water in the workings to flow out into the sea, or into one of the numerous streams which intersect the district. In the 16th century Scremerston pits were supplying Berwick with coal. But, by 1590, the Corporation of the town was in conflict with 'the naughty fellows of Scremerston':²

For reformac'on to be had in the measure of coals at Scrymerston Pitts.

Whereas in Sir Nicholas Sturley's tyme, the price of coales was inhansed from one pennye into two pence the boale, upon consideration that the same boale of Scrymerston coales should contayne two Barwick bushels.³ Now so yt is that the communitie and inhabitants of this towne ar very farr abused and evill intreated by such naughtye fellowes and servants as have the charge of the coale pitts of Scrymerstone, as well in that they will serve but half measure for holl, either at the pitts or in sendinge them to sell by carriage into the towne. As alsoe they will serve country men and Scottesmen before any of the garrisons of this towne. And foreasmuch as it is a matter chieflye touchinge the com'onwelthe and service of this pece, we doe crave that the L. governor and councell wolde please to provide especially for reformation in the premisses, so as the com'ons of this towne may have the just measure of two full barwick bushels for their boll at the pitts; and alsoe, that it myghte be further ordered, that no caryer shoulde bringe any coales to be solde in this towne, which do not contain a full Berwick boale, or a full Berwick bushel, &c. and that for the trial thereof there might alwaies be resident in the tolebothe a righte bushell for the same service.

A lease of the 3rd March 1711, from James Radcliffe, third earl of Derwentwater, to William Clavering, of Berrington, gentleman, of the coal mines at Scremerston, for a term of 15 years, with wayleave⁴ and liberty of building salt-pans⁵ at an annual rent of £80.⁶ This points to the possibility of drifts

or shallow mines being sited on the coastal strip at Cocklawburn at the beginning of the 18th century. By 1873 it was reported that the surface of the coalfield was literally honey-combed with old workings, and forsaken pit heaps were as plentiful as molehills in a mole-burrowed field.⁷

On the 13th February 1748 Jon Watson⁸ recorded in his journal that he had viewed Scremerston Colliery where there was a drift 516 yards long and a seam of coal 4 feet high. Sixteen years later Watson examined the contemporary and former workings of the colliery and these appear to have been sited to the south of the long-established Berwickhill Colliery. Watson's plan of 1764 suggests that there were two working pits and several old pits out of which coal was drawn. One of these could have been close to the present Deputy Row, it being the pit from which the old Scremerston level of 1764 was cut, 38 fathoms below the surface, and which remained in use until the last Scremerston Colliery closed in 1943. This drainage channel, 18 inches square, was cut through rock and drained the Scremerston Main Coal. Water from the Cooper Eye workings, in what would be the New Winning Pit of 1878, was pumped up to the Scremerston Main Seam to be drained away to the coast near Hud's Head, Spittal. The level was testimony to the skill and perseverance of the pitmen who cut it.⁹ In 1786 Watson noted that there were three sinkings on the Scremerston estate: the Tanny, Anderson and West pits. The lessees at this time were Messrs Terrot, Douglas & Smith.¹⁰ It is of interest that in 1799 Fuller¹¹ referred to there being three pits at Coldside, about two miles south of Tweedmouth.

Mining in 1786 appeared unusually hazardous: a section of the mine was on fire, making parts unworkable; other workings were flooded; and sludge, upwards of 2 feet in depth, had made some areas inoperative. The 18th century problem of excess water was common throughout north Northumberland and would persist at Scremerston until the final mine closure. As already stated, the quality of the coal was not of a particularly high standard, but it was the best that was readily available and the local market ensured the coalfield's future. There is no indication of the level of output from the earlier Scremerston mines but Greenwell¹² has observed that in the Newcastle coalfield, in the mid-17th century, a pit of moderate depth was judged successful if in one day it yielded 20 or 30 tons. 18th century outputs in Scremerston were extremely low, when compared to those of the early 20th century.

After the 18th century phase of mining on the southern slope of Sunnyside the shafts appear to have migrated a short distance to the south. One of them, mentioned in 1828, the Old Hill Colliery, closed in the early 1840s. Its shaft was brought into

use as a furnace shaft¹³ to improve the ventilation of the new Greenwich Colliery on the south of the estate. The Old Hill Colliery was also known as Restoration Pit and is shown as such on the Ordnance Survey 1st Edition 6 inches (to 1 mile) sheet of 1866 that had been surveyed in 1860. The Restoration Pit was adjacent to Borewell Tileworks, midway between Deputy Row and Borewell. The outline of its former shaft can be seen at the northern end of Restoration Cottages.

One of Scremerston's most expensive mining ventures was mounted in 1840 at the southern end of the estate, immediately north of Doupster Bridge, where, on the site of an old pit, a new shaft was sunk to the 'great depth of 110 fathoms'.¹⁴ This Greenwich Colliery became known as Scremerston Colliery but in the present paper the former title is retained to avoid confusion with the next colliery that would open. The water tower of 1840, still structurally intact, carries the inscription:

ERECTED A.D. MDCCCXL
BY THE COMMISSIONERS
OF GREENWICH HOSPITAL
JOHN GREY ESQ RECEIVER
MESSRS JOHNSON & CARR
COLLIERY LESSEES
THOMAS FORSTER ESQ
VIEWER AND ENGINEER
MR W ELLIOTT TWEEDMOUTH
BUILDER

This plaque is positioned high on the west wall of the massive water tower, built of sandstone and topped with a tank. Immediately to the east of the tower are the remains of a substantial engine house, with sandstone walls and a slate roof. Adjacent to it, on its northern edge, is the concrete-capped shaft. These remains of Greenwich Colliery, sited in woods covering a former spoil heap, are the most prominent reminders of mining to have survived in the district.

A brief account,¹⁵ of 1873, gives an insight into Greenwich Colliery before it reached the end of its working life. Messrs Johnson & Carr were still the lessees, having in 1870 re-formed under the title, the Scremerston & Shoreswood Coal Company. Fifty-four hewers were producing an average of 150 tons of coal per day. The seam being worked, the Scremerston Main Coal, was about 4 feet 6 inches in height and yielded two grades of coal, the best sold at 15s. per ton and the seconds at two or three shillings less. As a general rule the men employed were native

to the soil, but many of them, once they had mastered the art of hewing, left for the richer seams and more remunerative employment of south Northumberland or Durham, where there was a chance of earning a few shillings more each week than the seven or eight which (in 1873) was average in north Northumberland. Greenwich Colliery closed in May 1878 when 100 men were thrown out of work.¹⁶ Before the close of the 19th century Greenwich Colliery was being referred to as the Old Colliery or Jack Tar Pit. The last round of activity around its shaft occurred in 1913 when the managing director of Scremerston Colliery, J. E. Carr, decided to reopen the Jack Tar Pit. It was more than three decades since the pit had been laid-in, and in that time a vast quantity of water had accumulated in the old workings and shaft. A pump, suspended in the shaft, was powered by electricity generated at the New Winning Colliery.¹⁷ The official returns, however, reveal that only two workmen were employed below ground and two on the surface. In each of the next five years the Jack Tar Pit was listed as 'suspended'¹⁸ and it seems it was never brought back into production.

Before Greenwich Colliery closed in 1878 the shaft of the last of the Scremerston collieries, the New Winning, had been sunk. On Saturday 22nd September 1877 the employees of Messrs Crichton & Winning, contractors, were entertained to dinner by the partners of the Scremerston & Shoreswood Coal Co. The dinner was held in the Miners Arms at Tweedmouth on the occasion of the termination of the sinking of the new shaft.¹⁹ This is the colliery that is best remembered by many in north Northumberland and a few of its former miners still survive.²⁰ It became better known as Scremerston Colliery and was one of the first, if not the first, in Northumberland, to adopt the longwall system of working, and miners went from Scremerston to teach pitmen in the southern part of the county this method of working coal. The record output from the mine occurred in March 1910 when 389 tons 9 cwt was won in a single day by 241 men and boys (199 below/42 above ground). By 1926 the Cooper Eye Coal was the only seam being worked in Scremerston Colliery: 2 feet 8 inches high it was split by a bandstone 11 inches thick.²¹ Four years later a new seam was opened up and in September 1930 the event was marked by samples of the new coal being exhibited in the window of Messrs Caverhill's hardware shop in Bridge Street, Berwick.²²

Scremerston's other shafts of boreholes that were known to exist in 1915²³ were:

Shaft/bore	Situation	Depth
No 1 Bore	At Richardson's Stead, 300 yards east of the smithy.	605ft 6in
No 2 Bore	About 1 mile SSE of Richardson's Stead and 300 yards north-west of Scremerston Farm.	765ft
No 3 Bore	Seems to have been in Berwickhill ground: at the junction of Prior House Road and the Great North Road.	535ft 10in
In No 16 Pit or the Rise Pit	A little west from the New Winning Pit at Deputy Row; used as an upcast shaft.	94ft 3in
Engine Pit	On west side of Scremerston Colliery Incline and north side of Deputy Row.	359ft 6in

In No 2 Bore there were two coals about 45 feet above the Woodend Limestone — in the Lower Limestone Group, above the Scremerston Coal Group. The lower seam, upwards of 3 feet 7 inches thick, was largely wrought west of Scremerstonhill for lime-burning, early in the 19th century. These workings were drained by a level driven from the Slateford Burn. The same coal was also worked south of Greenwich Colliery where, in 1926, there were still traces of old shafts.²⁴

In the course of the history of the Scremerston field numerous drifts were dug and shafts sunk. Some were no more than trials while others flourished, peaked, declined and passed away. Prior to 1943 they were replaced by others. While blanks exist the evidence points to the order of working as having been:

1. 16th century development — pits that supplied Berwick with coal, their location is not known.
2. Early 18th century development — on the coastal strip at Cocklawburn.
3. 18th century drifts — on the southern slopes of Sunnyside, immediately south of Berwickhill.
4. 1764 working — on a site close to the present Deputy Row.
5. 1820s shaft towards the middle of the estate — Old Hill Pit or Restoration Pit.
6. 1840 shaft at southern end of estate, just north of Doupster Bridge — Greenwich Colliery, Scremerston Colliery, Old Colliery or Jack Tar Pit, 1840-1878.
7. Final development, 1878-1943, at the mid-point — New Winning Pit, No 18 Pit or Scremerston Colliery.

Scremerston, at the hub of the northern field, had its heyday in the first two decades of the 20th century. In the post-World War II years, following the closure of Scremerston Colliery, the villagers voiced their opposition to the unsightly spoil heap that had been left behind.²⁵ Eventually it was reduced, planted with fir trees and used as a building site for a bungalow.

Lessees and management

In 1828 Robert Johnson was the lessee of Scremerston Colliery and his steward was Andrew Scott.²⁶ Six years later the joint colliery agents and viewers were Andrew Scott and Richard Geddes.²⁷ By 1840 the engineer who contributed most to the development of the deep new mine was Thomas Forster, and his name is commemorated on the pithead plaque. Greenwich Colliery had, however, a new viewer, Stephen Scott, in 1841.²⁸ As the plaque reveals, the lessees in 1840 of the new colliery were Johnson & Carr and they were to remain central figures for much of the final century of Scremerston mining. Nor was the influence of the Carr family restricted to north Northumberland. They were a mining dynasty, with the founder, John Carr of Ford, being agent to Lord Delaval. Towards the end of the 18th century the first John Carr commenced opening pits, principally on the Ford estate, and when he died in 1829 his mining interests extended into south Northumberland. These Northumberland collieries passed to his sons. They leased Seghill, Burradon, Hartley and Felling and had interests in other mines. The Carr Bros. were the owners of the Hartley Colliery when the catastrophe occurred in January 1862 and 204 men and boys lost their lives. This, and other mining accidents, almost ruined them.²⁹ Richard Fynes³⁰ commented on the Hartley disaster:

Hartley Pit was no worse than many other pits in the district. Messrs. Carr, instead of being worse, were very much better masters than many the miners had to deal with. The only feeling that existed in the district amongst all classes towards the very unfortunate owners of Hartley Colliery, was one of sympathy.

The Carr family's connection with Scremerston, according to John Evelyn Carr,³¹ went back to before 1700. J. E. Carr, the great grandson of John Carr of Ford, was managing director of the Scremerston Coal Co. from 1898 until 1922. The fourth John Carr to be associated with the district's collieries, he recalled on his retirement, how he had seen the longwall system at Cowpen, Blyth, but it was nothing compared with what it used to be at Felkington, when they used to go down ladders and could be underground for 14 hours. J. E. Carr had been manager at Felkington prior to its closure, when his company also leased and worked Unthank, Billy Law, Berwickhill, Shoreswood and Etal collieries. In addition, the company held and worked numerous

limestone and sand quarries in the Scremerston triangle and manufactured lime, bricks, tiles and terracotta. John Evelyn Carr was a popular master and most of the improvements made in Scremerston village were due to him.³² Another popular Scremerston master in the final decades of the 19th century was Thomas Johnson of Seahouse. His workmen erected a monument to him near Scremerston church but by 1902 only the pedestal remained.³³

In 1935 when the owners of Scremerston Colliery seemed inclined to close the pit this prompted the men to form a syndicate, and raise £3,000 to purchase it. The owners then decided against closure and in November 1935 it was purchased by C. A. Nelson, chairman of Hartley Main Collieries Ltd.,³⁴ who undertook a modernisation programme. This included the introduction of an underground conveyor belt system, coal cutters and electrification.³⁵

In its long history Scremerston collieries had of course many viewers or managers, including Henry Morallee (1855), W. Brown (1880s), John Walkinshaw (1886), Robert Nesbitt (1887), James Cleland (1898-1901), J. E. Carr, D. A. Evans (1920s) and J. A. Kilpatrick (1930s).³⁶ An under-manager who is still remembered in Scremerston is John Whitfield.³⁷

Mining methods

Each section in the Scremerston collieries, post-1840, was controlled by a deputy who was responsible to an overman who, in turn, reported to the 19th century viewer or the 20th century manager. The deputy was responsible for the safety and ventilation in his section and for the movement of the coals to the shaft bottom. The overman was second-in-command and, in pits where there was no under-viewer or deputy manager, there was normally one overman. In the north of England mining districts prior to 1830 the coal below ground was generally transported from the coal-face to the shaft in corves on a carriage called a rolley. Then in the early 1840s³⁸ tubs on rails proved to be an immense advance and this became the main means of moving coals underground. It is assumed that Greenwich Colliery of 1840s witnessed the changes happening regionally. Once the hewers had filled their tubs these were taken to the sidings by putters, who had also to maintain a supply of empty tubs to the coal-face. Putting coal could involve pushing a 7 cwt loaded tub up a one in ten gradient. At the sidings the putters passed the tubs to a pony driver who hitched them to his pony and took them to the main haulage line and hence to the shaft bottom.

A feature of many of the old coal mines in north-east England

were the long water-courses cut to drain the workings. Greenwell³⁹ remarked on the beauty of many water-courses or levels and the patient toil with which they had been executed by pitmen, working with primitive tools and no explosives. Water-courses, 18 inches in width, cut through stone, could be straight and as smooth as though they had been chiselled. The old Scremerston level of 1764, referred to above, was such a work. The pit in the final phases of mining was kept open only by the pumps being manned around the clock, seven days a week. Then, on Saturday mornings, when only the pump men were at work, three of them donned special clothing and cleaned the 18-inch square water-course. Blockages were cleared and the iron stained pit water ran freely into the sea near Hud's Head. Keeping the level clear of debris was a cold, time-consuming and miserable task.⁴⁰

In British collieries there were two methods of working coal: the bord and pillar and the longwall. As indicated above, the latter method was practised at Scremerston where the seams were not fiery, the seams were thin, roofs consisted of tolerably hard stone that could be taken down to form gate roads and seams were split by bands of stone. Scremerston collieries possessed all the conditions⁴¹ suited to the longwall system of mining.

Ventilation in English coal mines before the mid-19th century was usually by means of a furnace or fire in the vicinity of the upcast shaft. In small mines furnaces were sometimes placed on the surface and surmounted by a chimney. But this method only generated a limited circulation of air and was wasteful of fuel when compared to the furnace sited underground. Where the upshaft formed the chimney an exceptionally strong draught was created. Earlier it was noted that the Old Hill shaft had been utilised as a furnace shaft for Greenwich Colliery (Figure 2).

In north Northumberland fire-damp was present but never a major hazard and open flames were widely used. The candle was the main source of light until the final phase in the history of the field. The pit candle, invariably small, weighing from 30 to 50 to the pound, was best when made from clean ox tallow, with a small wick of fine cotton. Candles were normally used throughout the pit, except near the shafts, where more light was needed. In August 1878 the Davy safety lamp was introduced into Scremerston Colliery but the miners objected to the feeble light that it gave.⁴² In Scottish collieries small tallow lamps were popular and these were used at Scremerston⁴³ for a long period. Then followed the small brass carbide lamps that had flints to ignite the acetylene gas that was generated by water dripping on to the carbide. Ex-miners remember the open flame gave a good

enough light but threw out a great deal of smoke. When the underground workings were eventually lit by electricity in 1935, the pitmen appreciated the advance.⁴⁴

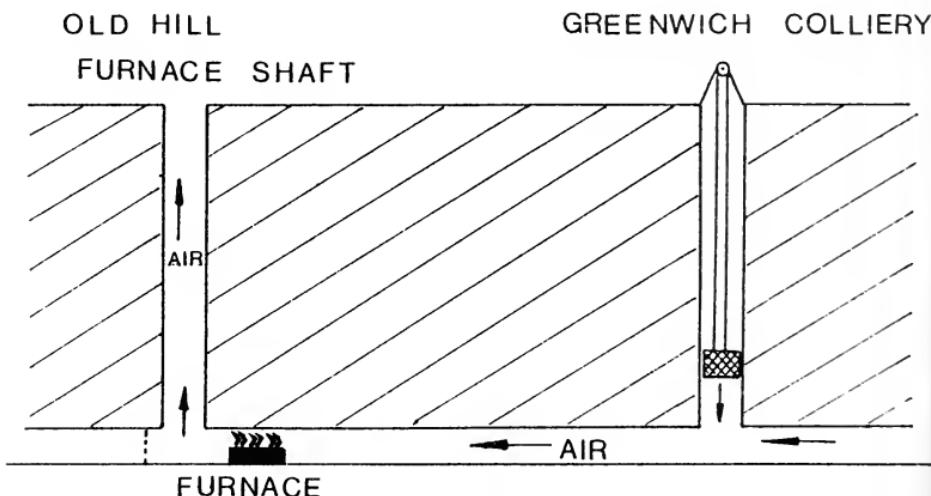


Figure 2. Greenwich Colliery ventilation.

Workforce

In 1855 Greenwich Colliery gave employment to 120 men and boys⁴⁵ and this may have been the approximate total engaged in Scremerston mining for most of the remainder of the 19th century. By 1899 it had risen to 166 (145 below/21 above ground) and exceeded 200 (170 below/32 above ground) for the first time in 1903. It then appears to have remained above the 200 mark year by year to 1935, having peaked at 295 (228 below/67 above ground) in 1919.⁴⁶

At the close of the 19th century Scremerston miners struggled to exist, and were working short time: three days a week in summer and four in winter. But J. E. Carr's arrival improved matters as he endeavoured to provide employment for all his workmen without reducing wages.⁴⁷ In 1903 the men, however, were working nine days a fortnight due to the 'usual slackness', caused by farmers being otherwise engaged and not at liberty to lead coal. A recently erected screening plant had improved the quality of the coal and it was hoped that this would lead to more local orders.⁴⁸

Short-time working continued throughout the depressed inter-war years, when the men would work two days one week, three the next and receive unemployment benefit for the other days.⁴⁹ At other times, as in September 1927, Scremerston Colliery would close for a week at a time.⁵⁰ By July 1932, when the same practice

was being followed, the delivery of coal was maintained, as the wagon men drew upon the pithead stocks.⁵¹ In 1935, on the change of ownership, the colliery closed for three weeks,⁵² and this was followed, in December 1935, by an appeal, made at the annual dinner of the Scremerston branch of the British Legion, to local people to buy Scremerston coal.⁵³ Three years later the call was repeated at a meeting of the Berwick Employment Committee:⁵⁴ Scremerston miners were worthy of the district's support.

In 1984 former miners still living in Scremerston were:

George 'Joiner' Richardson	Cheviot Terrace
Jim Wakenshaw (former deputy)	Cheviot Terrace
Henry Hope (former blacksmith)	Armstrong Court
Eddie Thomson	Restoration Cottages
Robert Johnson	Main Street
Willie Lockie	Prince Charles Crescent

George Richardson, born in 1899, started work at the age of 12 years when, each day, he walked three miles from Sand Banks to Scremerston Colliery, for ten pence per day. Two years later he went underground to start a 5-year apprenticeship before being allowed to work at the coal-face. George spent 47 years working underground. He also served as a Coldstream guardsman in the 1st World War.⁵⁵

Working conditions

Outstanding memories of Scremerston colliers would almost certainly be of cramped working conditions because of low seams and of water. Everywhere there was water: it dripped from the roofs, it lay on the floor, it swirled around in the standages,⁵⁶ it soaked the clothes and it crept into the bones. Miners firmly believed that for every ton of coal won from Scremerston seams, 40 tons of water was pumped into the sea.⁵⁷ Pit clothes had the ability to stand on their own as they dried out.

The shifts worked were those adopted by industry at large: the 'fore' (6 a.m. to 2 p.m.), the 'back' (2 p.m. to 10 p.m.) and the 'night' (10 p.m. to 6 a.m.). In the 1930s, when the miners descended the shaft in the cage, those working at the coal-face had a mile to walk or crawl. The pit was then ventilated by compressed air, not the best means of ventilation, and conditions were never too comfortable. The hewers returned to the main gate for their 20 minutes lunch break while the rest of the shift was spent on their sides, getting the coal out. They were often paid for what they produced, so it was not unknown for teams to lose pay because of the amounts of stone in the coal. The band of

stone between the top and bottom coals might only be 5 inches thick, but once removed it had to be placed behind the men at the face so that it could be taken away. Then they were able to start on the top coal and it came away in slices. Each man worked a section almost 10 yards long and when production was at its peak, a miner could hew a ton a day. When youngsters started work at 14 years the majority worked on the surface. But some, and Jim Wakenshaw was one, went straight underground to work as putters. In the north of England, since about 1842, small ponies had been used to haul full tubs and pull back empties.⁵⁸ Scremerston was no exception and 14 ponies were still employed below ground until 1930. They were stabled near the bottom of the shaft and were seldom taken to the surface. As in most mines, it was claimed that the ponies were well treated.

In 1951 two retired Scremerston miners, Frank Patterson and Alex Hope, told Sid Chaplin, the author of an article in *Coal*, a National Coal Board magazine, that earlier in the century a district in Scremerston Pit was called 'Fisherman's Flat', being reserved for fishermen miners and closing for the duration of the Tweed salmon fishing season. Alex had a season with the nets and both he and Frank admitted to having been salmon poachers. That Scremerston miners worked periodically at salmon fishing and that some engaged in poaching is not in dispute. But that a district of a pit had to be maintained when it closed for seven months (February to September) in the year seem unlikely. The report⁵⁹ would appear to have been somewhat exaggerated.

Village

Nineteenth century census returns⁶⁰ for Scremerston were:

1831	c.	500	1871	1069
1841		692	1881	755
1851		953	1891	754
1861		1080	1901	757

The area designated as Scremerston included the farms of Scremerston Hill and Oxford, all being within the ecclesiastical district of Ancroft. Between 1841 and 1861 Scremerston estate experienced a greater increase in population than the national average, because of the coal mining and new industries being developed. Incoming labourers arrived from Scotland, Ireland, the surrounding country districts and small pits in the area. Some of the incomers did not stay long and needed replacing when they moved on. A number of the newcomers were accompanied by large families and this added to the social problems of the estate. Major developments included:

- 1830 Scremerton estate divided between the parishes of Tweedmouth and Ancroft.
- 1839 The Vicar of Ancroft, the Reverend William Hewitt, and others, recognised the spiritual and educational needs of Scremerton's rising population and began campaigning to build a church, parsonage and schoolmaster's house and form a consolidated chapelry.⁶¹
- c. 1840 Colliery Row built close to Greenwich Colliery.
- 1841 Some of the money raised towards the improvements was lost when the Tweed Bank collapsed. This shock prompted the Bishop of Durham to donate a further sum.⁶²
- 1842 School built.
- 1843 Anglican Church of St Peter built.
- 1844 Parish of Scremerton created.
- 1845 Vicarage built.
- 1870s Deputy Row houses enlarged.
- c. 1877 Churchyard extended.
- 1890 School enlarged.

In 1873 a visitor to the village noted that the Scremerton miners, although few in number, did not live in a compact settlement, as in many mining communities.⁶³ Indeed, the three distinct rows of former miners' cottages that survive today illustrate the scattered nature of the village. In the late 19th century there were 30 houses at Richardson's Stead, 10 at Restoration Cottages, 12 at Deputy Row, 10 at Derwentwater Terrace and 19 at Colliery Row, later Old Colliery Row.⁶⁴ Three decades after being built the 'one-up-one-down' cottages of Colliery Row were seen by the mine officials and residents as model homes, although inferior in most respects to the miners' cottages of south-east Northumberland. These large two-roomed cottages had fireplaces in the downstairs room which, in 1873, were described as old fashioned. They had an oven at one side but no pot or boiler at the other, so when hot water was needed on wash-days or for pig-killings it was obtained from the yetlin,⁶⁵ suspended from an iron hook above the fireplace. The two rooms in these cottages were almost large enough to make four, and where there were large families an improvement would have been to have a partition run across the upstairs room. Each of the Colliery Row cottages had a pantry, a garden in front, a garden behind and a covered coal-house. In 1873 the surface drains behind the row were overflowing as the over-filled ash-heaps blocked the watercourse. As a consequence, this was very

insanitary. At one end of the row there was a colony of pigsties.

The dwellings at Richardson's Stead formed a small square, at the centre of which stood a huge ash-heap, flanked by a few almost roofless coal-houses. Large sink-holes at intervals formed traps for the footsteps of the unwary, and the general appearance, of what was the village centre, was extremely squalid. The majority of the houses had two rooms, one on the ground floor and one up a ladder. There was also a short row of cottages backing on to the turnpike, each consisting of a single room with a brick floor at least 6 inches below ground level. They were damp and clammy. Also at Richardson's Stead was the parish church, the National school with accommodation for 150 pupils, and the post office.

In 1873 there was a square of cottages at Old Hill, most of which were one-roomed. Some, however, had four rooms that were occupied by four families. One of these cottages had been converted into a newspaper room by the colliery owners, who charged sixpence a month for membership. A little further to the east of Old Hill was another short row of cottages called the Old Engine, that were described as the most wretched dwellings in north Northumberland, and which were reserved for the Irish labourers who worked at the pit. Another short row of one-roomed houses, Deputy Row, had projecting pantries, detached pigsties and unsavoury ash-pits. The number of dwellings in the Scremerston of 1873 with privies was extremely low.⁶⁶ Life was, even by the standards of the day, primitive and harsh.

The Scremerston Colliery band was formed in 1884 and performed first at Seahouse, the residence of Thomas Johnson, in July, at the half-yearly meeting of the partners of the Scremerston & Shoreswood Coal Company. But it was not until the appointment of John Evelyn Carr as managing director of the Scremerston Coal Company in 1898 that the quality of life in the village began to improve. He helped in the provision of a miners' welfare institute and sports ground. The institute fostered a community spirit, being home to the football club, British Legion, tennis Club and Women's Institute. During the 1926 strike the cycle track was built round the football pitch with waste from the colliery spoil heap. J. E. Carr also donated prizes for a wide range of activities in which the villagers participated. The managing director of the local company earned the respect of his workmen and their families. His was a meaningful contribution.⁶⁷

UNTHANK CLUSTER

This group of mines is within the area immediately to the west of Berwickhill and the Scremerston workings. Sited on either

side of the Tweedmouth to Etal and Ford turnpike the remains are now found to left and right of two miles of the B6354 road from Prior House to the Allerdeanmill Burn. They include the coal pits of Billylaw, Murton and Unthank.

Billylaw pits

At Billylaw, on the western side of the Etal road, two miles from Berwick, there is a tendency to treat this as a working of the period 1870-1890. The Ordnance Survey 1st Edition 6-inch map, however, clearly shows an old pit and smithy immediately to the north of Billylaw farm buildings. The more recent mine was being worked in 1871 by Johnson & Carr and it remained under Scremerston ownership until its closure. In 1873 the 'new Billy Law Pit' had opened to work the Bulman or Cancer Coal that had been exhausted in the Berwickhill royalty. The base of the new shaft gave the Scremerston company a new point of departure to work the Bulman westwards and south-westwards. Thirty-three hewers had transferred from Berwickhill to Billylaw and it is recorded that in 1873 the new pit was being 'besieged by farmers' carts and drivers clamorous' for a share of the 40 to 50 tons being raised each day. The coal was being drawn to the surface in round tubs.⁶⁸ In 1883 the mine was managed by W. Brown, the Scremerston Colliery manager, and this appears to have been the control applied throughout the life of the pit. In the mid-1880s the Cooper Eye Coal was worked at 26 fathoms depth and a typical section⁶⁹ of the seam was:

Coal (split)	1ft 5in
Midstone	2ft
Ground coal	1ft 1in

Early in 1890, when all available coal had been worked out, Billylaw was abandoned and the men transferred to Scremerston Colliery.⁷⁰

Murton collieries

The Norham & Islandshire Book of Rates for 1680⁷¹ confirmed the existence of a highly rated colliery at Murton:

Murton tyths	1s 8d
The colliery in the player ground	4s 8d

Fuller in 1799 mentioned the existence of 'three pits at Morton, three miles distant from Berwick'.⁷² By 1820 the Bulman Main Coal was being worked in a pit at Murton Colliery, at a depth of 18½ fathoms. The seam, 4 feet 11 inches thick, consisted of five coals split by three bands of stone of a total thickness of 7½ inches.

The Cooper Eye at Murton was only 2 feet 2½ inches thick, with the two coals being separated by a midstone of 1 foot 2½ inches.⁷³ There are mining remains to the west of Murton Square, on the western side of the Etal road, 2½ miles from Berwick.

The coals raised at Murton Colliery for various periods, 1810 to 1825, have been compiled from a series of slips, each addressed to Thos. White, East Ord, that are deposited in Berwick Record Office:

Year	Four week period ending		Output	
			Tons	Bolls
1810	Nov	23	32	178½
1811	Feb	15	36	268
	Mar	15	34	299
	April	12	27	17½
	May	10	30	101
	Nov	22	30	301¼
	Dec	20	31	392½
1812	May	8	29	274

Murton Colliery: coals raised in four week periods, 1810-1812.

Period	Output	
	Tons	Bolls
27 Oct 1810 - 10 May 1811 incl.	221	373
1 Nov 1811 - 8 May 1812 incl.	215	319
4 Nov 1824 - 19 May 1825 incl.	209	347
19 May 1825 - 3 Nov 1825 incl.	67	402

Murton Colliery: coals raised, various periods, 1810-1825

It is difficult to place accurately those coal mines formerly referred to as being at Ord. These could have been in the area of the Unthank cluster. This applies to a record of 1586 which states that the tenants of the two 'colemynes within the feildes of Ourde' were George Murton, Rowland Burrell and Christofer Ourde. But in February of that year it was alleged that the said coalpits were not being properly managed or they were not meeting the local demand for coal. When a complaint, 'for the great abuse which is com'itted in spoylinge of the grounds or colemynes . . .', was made in the council chamber it was ordered that the 'pitts should be viewed' by Hector Woodrington, the Provost Marshal of Berwick, George Ourde of Longridge, gent., John Saltonstall of Berwick, gent., and others. To view a pit is the mining term for a survey or inspection with follow-up suggestions for the pit's future development. This was done and to 'bringe yt to some good order' it was recommended that

there should be but two pits working at any time and each should employ:

5 hewers
3 men above ground: 2 winders 1 banksman
2 putters
1 overman for the two pits

Thus, it was ordered that Christofer Ourde, who held four parts of the tenancy, should find 14 colliers while George Murton and Rowland Burrell would be responsible for seven each. The order was signed by Sir Henry Woddrynton, Marshal of Barwick, Anthonye Anderson, Mayor, and John Selby.⁷⁴

Unthank collieries

The Book of Rates of Norham & Islandshire also provides proof of a 17th century colliery at Unthank:⁷⁵

Unthank tythes	0s. 5d.
The collyery there	1s. 9d.

The abstract of the title of West Orde in 1744 includes undivided lands, in all 165 acres, called the Threep grounds between Murton and Unthank, a quay or coal staith in Tweedmouth, a fire engine, mines and minerals, together with the coal mines and seams of coal belonging to the vendor in East and Middle Orde. Also a freehold estate called Unthank that included lime and coal, let to John Anderson, jun. for 21 years from May-day 1753, at £110 per annum.⁷⁶

Winning a colliery involved boring, sinking and lining the shaft, opening up the underground galleries and keeping them free of excess water. An account book⁷⁷ that records the winning of Unthank and Boghill Colliery, between April 1765 and March 1766, reveals that the cost of sinking, the masons' work and drifting to have been £1373. This record also points to machinery having been installed to pump surplus water, move coal underground and raise it to the surface. There also exists a plan⁷⁸ of the colliery that was prepared by William Brown of Throckley, the most eminent viewer of his day in north-east England. He was, when employed as a viewer or consultant at various collieries in Northumberland and Durham, responsible for building or adapting many of the early fire engines for pumping water from mines. The plan of Unthank shows the system of bord and pillar

work employed, the various shafts and a representation of a beam engine at 'A', the Engine Pit. The colliery at Ord and Unthank was from the 1st January 1767 let for £200 per annum to Fenwick Stow, Elias Boreham and George Douglas⁷⁹ for a term of 21 years.⁸⁰

In the mid-19th century there was still a landsale colliery at work on the Unthank estate. A proposal to route the Berwick to Kelso railway via Unthank had not materialised but, according to Raine,⁸¹ 'a railway has since been laid to Tweedmouth, or Spital, by means of which Mr Selby is enabled to convey his coals to the sea'. This was the waggonway from Unthank to Tweedmouth that is marked on Greenwood's 1828 map of Northumberland. According to Warne⁸² the waggonway included an incline plane and was known to be operational by 1764.

RAILWAY FROM UNTHANK COLLIERY TO TWEEDMOUTH.

ESTIMATES will be received by MR. BALMER,
Ancroft Greenses, on WEDNESDAY the 6th
September next, at Three o'Clock, P. M. for Cutting
and Mounding sundry parts of the intended Railway.
Particulars are inserted in the Handbills, which may be
had by applying at Tweedmouth Low Gate.

Greenses, August 24th, 1826.

Figure 3. Unthank waggonway.

North of Allerdean the Scremerston Main Coal was extensively wrought and Unthank Moor was riddled with shallow old pits, the deepest of which, Unthank Colliery, was 48 fathoms. The Unthank East pits worked the Fawcet Coal and the Bulman Main Coal was sunk for but not found.⁸³

The Berwick Town Council minutes⁸⁴ provide the annual outputs for the final phase of Unthank Colliery:

	tons	cwt		tons	cwt
1897	7,921	5½		1902	8,677
1898	7,809			1903	9,101
1899	9,255	16		1904	7,805
1900	11,618	0¾		1905	Work suspended
1901	11,777	19½			

At this time Unthank was worked by the Scremerston Coal Company.⁸⁵

ALLERDEAN CLUSTER

This group of mines again lies to east and west of the B6354 road, to the south of Unthank cluster, for a distance of little more than a mile from Miller's Bridge, over the Allerdeanmill Burn, to the Folly Bridge. The western boundary is the edge of the Scremerston Triangle that passes through Shoreswood, while the eastern boundary is the line of the A1. The workings in this area are those of Allerdean, Blackhill and Shoreswood.

Allerdean Colliery

This landsale colliery, on the north side of the minor road between West and East Allerdean, was owned in 1861 by Barkass Burdon & Co., but in the period 1862-1868 had passed to Sibbit & Co. The mine was shown to be working on the Ordnance Survey 1st Edition 6-inch map of 1866. It is uncertain which coal was worked, but was unlikely to have been the Scremerston Main Seam, which was wrought very little around Allerdean.⁸⁶ In 1861 Allerdean coals were being delivered in Berwick,⁸⁷ the agent being Joseph Milburne⁸⁸ with T. Crewther, jun.⁸⁹ acting as agent in Spittal. Allerdean Colliery ceased working in 1869. A neighbouring pit, that had closed before 1866, was situated 275 yards ESE of West Allerdean.

Miller's Bridge Pit

The remains of this pit, 200 yards south-east of the Miller's Bridge and 3½ miles from Berwick on the Etal road, are marked on the Ordnance Survey 6-inch sheet of 1866. The Scremerston Main Coal was reached at about 20 fathoms, but was absent in workings less than a mile to the south.⁹⁰

West Allerdean Folly pits

The pits near the Folly, West Allerdean, are thought to have worked a coal called the Diamond Seam, situated 3 feet below the Stoney Coal.⁹¹

Allerdean Drift

Immediately to the east of the Miller's Bridge a waste heap, easily seen from the B6354, marks the remains of Allerdean Drift. On the southern slope amidst the spoil the bricked entrance to the drift is clearly visible. It was originally opened in 1904 by John Shiel, of Sniperley Hall, Durham, with an initial workforce of 10 (7 below/3 above ground) and George Mercel as manager. In the

following year when the number employed peaked at 50 (33 below/17 above ground) the drift was managed by James Cleland, formerly a manager at Scremerston Colliery. But in 1907 when an inrush of water caused the drift's abandonment it was owned by the South Garesfield Colliery Company with Robert Rolfe, a former Scremerston under-manager, as manager.

Then, in 1959 when Blackhill Colliery (see below) closed, difficult negotiations⁹² took place before a licence was granted to a handful of the men, led by Gavin Drummond, local secretary of the National Union of Mineworkers, to reopen and work the Allerdean Drift. The working was flooded throughout and the ventilation shaft was blocked with rubble. The reclamation exercise was led by Tom Gibson, senior overman at Blackhill Colliery, self-taught mining engineer⁹³ and brother of Jimmy Gibson, referred to above. Modern pumps removed millions of gallons of water from the drift and as the water level fell the roof supports were found to be in good condition after submersion for half a century⁹⁴ and on the 12th September 1960, six months after the preliminary work had started, the first coal was brought to the surface.⁹⁵ The drift was run by a private company, the Elsdon Coal Company, and, with John F. McLelland as manager, the workforce rose to 40. But, the company found the drift to be uneconomical and the inevitable followed: Allerdean Drift closed on the 9th September 1966⁹⁶ and so ended coal mining in North Northumberland.

Blackhill Colliery

Sited half a mile north-east of Allerdean Drift this colliery, the last to be opened in the district, was sunk between 1940 and 1942 by men drawn from Scremerston Colliery. It was a 40 fathoms deep nationalised mine, containing modern equipment. Blackhill was the first pit in Northumberland or Durham to receive a bottom loading conveyor belt that enabled the men to load the coal faster. Most of the miners came from Scremerston or Spittal and two buses collected each shift within a five miles radius. In 1945 135 men (96 below/39 above ground) were employed, by 1950 the number had risen to 187 (143 below/44 above ground) and in 1956 it peaked at 210. In the period 1949 to 1951 the colliery had a good productivity record: output in 1950 rose to 59,900 tons, an increase of 2,566 tons on the 1949 yield. In spite of difficult mining conditions the 1956 target was beaten. Blackhill was producing about 1,200 tons weekly and had many years of coal reserves left. There was only one other pit within a radius of 55 miles and a fleet of 12 lorries supplied 1,000 registered customers in north Northumberland and the Scottish Borders.⁹⁷

In the mid 1950s the Blackhill men received letters from National Coal Board executives congratulating them on their 'very excellent results'. Then, on 3rd December 1958 the Board announced the closure of 36 pits as an emergency measure to check rising coal stocks. Blackhill was one of those named. A local campaign was immediately mounted to save Blackhill. Following the National Coal Board announcement of closures, Tom Gibson, who had supervised the wartime sinking of Blackhill, produced a plan to reorganise the pit, reducing output to match local requirements only and still make a profit on the smaller turnover.⁹⁸ This was rejected and Blackhill closed, in accord with the National Coal Board proposal, on 20th February 1959.

In April 1981 the Northumberland Planning Committee gave outline planning approval for eight acres around the former Blackhill Colliery to be filled in with soil excavated from the Berwick by-pass, followed by tree-planting to screen the site. The single-storey brick buildings which formed the pithead were to be retained for agricultural use.⁹⁹ A new application was made in 1983 to improve the site¹⁰⁰ before consideration was given, in 1985, to use the site as a tip.¹⁰¹ A decade later the former pit buildings are being used to house livestock but the spoil remains unscreened. The site remains an industrial eyesore within a rural setting.

Shoreswood Colliery

Eighteenth century domestic records of the house of Marchmont, Berwickshire, point to coal being brought from 'Shoeswood and Dudo'¹⁰² and James Raine later reported that the ground of the colliery at Shoreswood contained three notable seams, the Main Coal, the Three-Quarter Seam and the Cowper Eye coal. The estimated yearly value of the colliery in 1852 was £250.¹⁰³ The Cooper Eye, 2 feet 6½ inches thick and containing a 9-inch band of grey stone, was much wrought at a depth of 43 fathoms¹⁰⁴ and although the Bulman Coal was also worked, 22 fathoms of strata above it did not contain any workable coals. Thus, the Scremerton Main Coal was never proved.¹⁰⁵

The Ordnance Survey 1st Edition 6-inch sheet of 1866 shows Shoreswood Colliery — with shaft, engine house, smithy and tramway — immediately to the south of Shoreswood Hall. Shoreswood was an important colliery and in the 1860s, when leased to Johnson & Carr of Scremerton, upwards of 200 tons of coal a day was being won. It is recorded that in winter, before the Alnwick to Cornhill railway was opened in 1887, there were times when between 300 and 400 carts were loaded at Shoreswood Colliery in a single day. Those carters who travelled to Shores-

wood from west of Kelso had to spend a night at the Old Waggon Inn, Kelso.¹⁰⁶

ANCROFT CLUSTER

The pits situated at the base of the Scremerston triangle constitute this cluster. They range from the Felkington pits at the western extremity through numerous Ancroft workings to a stretch of the A1 road from Bridgemill to the wind pump just north of Cheswick Buildings.

Felkington Old Pit

The Berwick to Etal road crosses the south-western corner of the Scremerston triangle and Felkington lies to the west of the road, 6 miles from Berwick. In 1823, when Felkington farm and colliery were to be let the 'mines of coal', with Mr Jackson the superintendent of the colliery, were advertised as 'very valuable and inexhaustible'. Entry for the new tenant was immediate.¹⁰⁷ In 1841 the colliery was offered for sale:¹⁰⁸

FREEHOLD ESTATE AND COLLIERY FELKINGTON ESTATE

Together with the valuable and inexhaustible
COLLIERY OF FELKINGTON and 14 Labourers
cottages attached. The Colliery is capable of
producing coal of the finest quality to an
almost unlimited extent. The whole is let on
Lease to highly respectable Tenants, and
producing an income of nearly £800 per
Annum.

Offered for sale at public auction at the Turk's
Head Inn, Newcastle, Wed. 26 May 1841 at
1 for 2 o'Clock.

Felkington New Pit

By 1866 the New Winning, 1,000 yards NNE of Felkington, had replaced Felkington Old Pit. In this Felkington New Pit in 1885 when the Bulman Coal was being worked, at a depth of 19 fathoms, the top coal of the seam was usually left as a roof. In the New Pit the Blackhill Seam was on average eight inches less than in the Old Pit. The New Pit in 1885 was leased to the Scremerston & Shoreswood Coal Co. and the manager was George Sutheren. In 1899 'Felkington Colliery Best House Coal' was being sold at 9 shillings per ton at the pit.¹⁰⁹ By 1905 the manager at Felkington was John Evelyn Carr and the under-manager was Robert Rolfe. In that year 28 men were employed underground and nine at the surface. The mine was abandoned in 1906.

COAL REDUCED IN PRICE.

SCREMERSTON COALS 12s 6d at Pit, and 14s 9d per ton delivered in Berwick and Tweedmouth.

BILLY LAW COALS 12s 11d at Pit, and 14s 11d per ton delivered in Berwick and Tweedmouth.

FELKINGTON COAL, 10s 10d at Pit.

Small quantities at Depot 9d per cwt.

All orders received at Sandgate and Tweedmouth Depots will have immediate attention.

Scremerton, 29th July, 1874.

Figure 4.

COAL! LIME! BRICKS!

SCREMERSTON BEST HOUSE COAL,

(DELIVERED IN THE COMPANY'S CARTS),

BERWICK, 13s per Ton; TWEEDMOUTH AND SPITTAL, 12s 9d per Ton.

Also delivered in from 4 to 8-Ton Trucks direct from Scremerton Colliery to any Railway Station.

A new portion of the Noted Cooper Eye Seam of greatly improved quality is now opened out, which will be found clean and free from sparks.

The Office in Sandgate is now open, where Orders will in future be received; also by MR JAMES PRAYER, Castlegate Coal Depot; and MRS ROBERTS, 102 High Street; at Tweedmouth by MR S. CURRLE, West End; and at Spittal by MR JAMES PALMER, Sandstell Road.

L I M E OF BEST QUALITY TRUCKED TO ANY PART FOR AGRICULTURAL OR BUILDING PURPOSES.

THE SCREMERSTON COAL COMPANY, LTD., will be glad to receive enquiries for COMMON CLAY BRICKS, ROOFING TILES, DRAINING PIPES, CHIMNEY CANS, and other COMMON CLAY and FIRE CLAY GOODS; delivered by rail in 4-ton lots; small quantities for short distances carted by arrangement.

FELKINGTON COLLIERY BEST HOUSE COAL, 9s per Ton Cash at the Pit.

Telephone Communication has been established between the Exchange, Berwick, and the Head Office, Heathy Tops (the Manager's residence) and Sand Banks Lime Works and also at the Office, Sandgate. GRAVEL may be obtained from Scremerton Beach at 6d per Load, on applying to Mr HENK, Scremerton Station. Our representative, Mr E. W. TURNBULL, regularly attends Berwick, Duns, and Kelso markets.

Head Office—Scremerton Colliery: National Telephone, No. 41.

Figure 5.

Ancroft Greens Pit

An error on the Ordnance Survey Berwick-upon-Tweed 1:50,000 sheet (75) of 1980 shows Ancroft Greens as Allerdean Greens. The pit at Ancroft Greens, just over a mile west of Ancroft, gave its name to the uppermost seam of the local coal series. The Greens Coal was worked here principally for lime-burning.

Ancroft North Farm pits

The same seam was worked in shallow pits near the former lime-works at North Ancroft, $\frac{1}{2}$ -mile north-east of Ancroft Greens.

Longdike Pit

At Longdike, midway between Ancroft and Ancroft Greens, at a depth of 24 fathoms, and about 10 fathoms below the Oxford Limestone, the Greens Coal, 2 feet 6 inches thick,¹¹⁰ was being worked in 1866. This long-abandoned pit was situated by the roadside east of Longdike.

Ancroft Stead Pit

At the former Ancroft Stead Quarry, $\frac{3}{4}$ -mile south-east of Ancroft, the Acre Coal, in the Middle Limestone Group, at about 30 inches in thickness, was worked. This was a poor, sulphury coal that was greatly inferior to its mid-Northumberland equivalent, the Shilbottle Coal.¹¹¹ Its obvious use was for lime-burning.

Ancroft trials

The Lickar Main Coal, in the Upper Limestone Group, was thought to have been proved about 1870, in a pit seven fathoms deep that was sunk in a field by the roadside opposite the former Ancroft Tile Works, a little more than a mile ESE of Ancroft. The coal, lying below quicksand, was about 4 feet 6 inches thick. Another trial was made, west of the disused tilesheds and, at 13 fathoms, two seams of coal were struck, one 26 inches thick and the other 30 inches. Neither appeared to be the Lickar Main Seam.¹¹²

Coal Burn pits

In the Scremerston No 2 bore, referred to above, two coals existed above the Woodend Limestone, in the Lower Limestone Group and above the Scremerston Coal Series. The lower of these, at 3 feet 7 inches thickness, was worked to some extent at the head of the Coal Burn,¹¹³ $1\frac{1}{4}$ miles WSW of Ancroft Greens.

COASTAL STRIP: MISCELLANEOUS WORKINGS

The final part of the Scremerston triangle is the coastal strip, east of the A1 from Beal Point northwards to Berwickhill. This includes workings around the hamlet of Cheswick and one near Ladythorne House. There are a few minor pits, lying just beyond the northern point of the triangle, in Spittal:

Cheswick pits

The Geological Survey recorded in 1926 that the Lickar Main Coal had been worked 'long ago' at Cheswick, but nothing was known of its thickness. At that time a large number of old pits and dayfalls¹¹⁴ around Cheswick pointed to the workings having been numerous. This local mining took place to the east of the Cat Inn Fault.¹¹⁵

Ladythorn Colliery

Coal was proved below Ladythorn, immediately south of Cheswick, prior to World War I but it was not until February 1948 that a drift was driven 70 feet into the ground and a few miners employed to exploit the seam. This small working did not have any registered customers and its output was bought by local coal merchants. Ladythorn closed in January 1951¹¹⁶ and later that year a second attempt to make it operational was short-lived.

Piper's Quarry workings, Spittal

The small pits to the Main Coal in Piper's Quarry, at the southern end of Spittal, were said to be six fathoms deep.¹¹⁷

Talkington

A coal working, listed in government publications, that has not been traced is Talkington. It was a listed colliery in 1869-1871 when the owners were Scremerston & Shoreswood Coal Co. The mine was not included in the official lists in 1883 or 1905. It seems likely to have been an alternative name for a Shoreswood pit.

ACCIDENTS

In addition to the two major hazards that were ever-present in Berwickhill Colliery¹¹⁸ — roof falls and shaft mishaps — flooding could and did occur in the mines of the Scremerston triangle. Again, in the pits under review, explosive and flammable gases were not the recurring problem that was so frequently encountered in other coal mining districts. But gases did of course build up in underground workings and had to be ignited. In 1984 the 85-year-old George Richardson recalled¹¹⁹ a blow-back in Scremerston Colliery that hurled him on to a heap of coal dust. The Scremerston Colliery fatalities that have been traced are:

I. 27th March 1810

Oswald Elliott

The local weekly newspaper reported:¹²⁰

On Tuesday last as Oswald Elliott, a pitman belonging to

Scremerston Colliery, was going down the pit in the morning, to his work, the rope broke, by which accident he fell to the bottom and was bruised to death.

II. 8th December 1822

John Aitchison

As at Berwickhill Colliery, unusual and unexpected accidents occurred:¹²¹

On Saturday last, a shocking accident happened at Scremerston Colliery. John Aitchison, a single man, servant to Mr Heriot, at Folly Hills, Berwickshire, while waiting for his turn, went to warm himself at a fire that is usually kept burning on the hill, and having done so, he then thought of preparing for loading, but not recollecting his situation and a thick release of sulphureous smoke issue from a pit that lay in his way, anxious to get through, he quickened his pace, and melancholy to relate, rushed into the pit's mouth, and fell to the bottom, a depth of thirty-five fathoms. It is almost needless to say that death was the consequence. On Tuesday, a Coroner's inquest was held, whose verdict was *Accidental death*.

III. 29th August 1829

James Jackson

The Overseer of Tweedmouth Parish reported¹²² the death of a parishioner:

I have to intimate to you another Colliery accident. James Jackson a Pitman at Scremerston Colliery went to his work yesterday morning about 3 o'clock went down the pit at four he started to . . . Prop up the Stone and trusting to the same unfortunately came down about seven black and bruised him very much was sent to Bank immediately and carried home to his own house at Spittal about 8 o'clock a.m. where a Doctor was in attendance but in vain he died at 2 o'clock p.m. and up to ten minutes before 2 he was quite sensible. His brother and the Overman were near to him and told him to be careful what he was doing. There was no wants in material in the Pit. His brother and all the workmen even himself concurred that it was an accident that is become too common. I considered it my duty to state particulars to you and you may rest assured that I have stated them as told me by John Jackson, brother to the deceased, Thomas Lee, Overman and indeed many more of the workmen.

IV. 26th December 1840

William Chambers

This Boxing Day fatality occurred in the sinking of Greenwich Colliery:¹²³

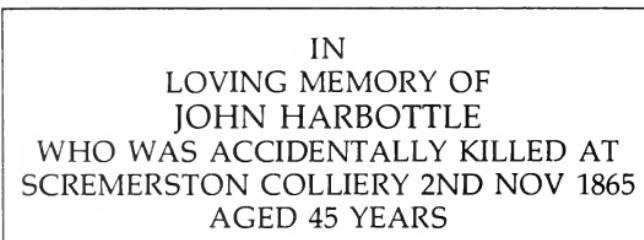
William Chambers, one of the workmen employed in sinking the new pit on the Scremerston property, met his death on Saturday forenoon last, by the following melancholy accident.

About half-past eleven o'clock, while he and another were sinking and some masons were employed lining the upper part of the pit, the attention of the latter was attracted to some part of the wall, which they represented to deceased as being in a dangerous state, and immediately left the place. Deceased was less apprehensive, and proceeded up the shaft to examine it, it gave way and carried him down to the bottom of the pit, a distance of 18 feet, which caused his instant death. His body exhibited few external bruises, but all means used to restore life were unavailable. Deceased was 47 years of age. He was a widower, and has left two daughters, one 20 and the other 15 years of age. A coroner's inquest was held on Tuesday, when a verdict in accordance with the above circumstances was returned.

V. 2nd November 1865

John Harbottle

There are two gravestones in the churchyard of St Peter's, Scremerston, which commemorate the deaths of two miners in Greenwich Colliery. The first is a pinkish-grey sandstone monument, topped with a circular decoration, to the left of the path immediately through the gate. It is inscribed:



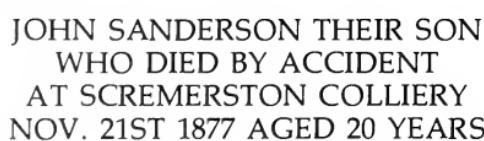
The local newspaper reported:¹²⁴

Yesterday morning, while John Harbottle was working in Scremerston pit, a stone fell from the roof of the pit on to his head, and he was instantly killed. The unfortunate man leaves a wife and a family.

VI. 21st November 1877

John Sanderson

The second 'mining' gravestone in St Peter's churchyard is of grey sandstone, with a circular top. It is situated to the left of the path at the entrance. The inscription includes the detail:



The weekly newspaper reported¹²⁵ on the incident:

On Wednesday morning a pitman named John Sanderson, 20 years of age, was killed by a fall of coal in Scremerston Colliery. He had been hewing and neglected to put props underneath the piece he was labouring at, it fell down and crushed him to death.

VII. 7th December 1900

James Wilson

A coroner's inquisition¹²⁶ ruled that this coal miner met his death by:

Effusion of both pleural cavities and pericardium caused by injuries sustained by part of roof of workings in Scremerston Pit accidentally falling on him.

The inquest was held on the 14th December by the coroner, William Weatherhead, in the Commercial Inn, Spittal, with Mr Hedley, the Government Inspector of Mines present. George Patterson, Kiln-hill, Tweedmouth, said in evidence that on Friday 7th December he was working with the deceased on the Unthank seam. 'We were redding away for the face of the coal about midday. Part of the roof above where we were working fell, and we were buried. William Baxter and other men came to our assistance and got us out. Deceased complained of his ribs on both sides of the body. He was removed to his home at Berwick Hill. The roof had all the appearance of being good, no part of it having fallen before so far as I know. The roof was limestone. We were building pillars with the stone we were removing. The roof came away without any warning. . . .'

VIII. 28th December 1918

Robert Davidson

The coroner's inquest ruled¹²⁷ that this miner died as a result of:

Shock from injuries rec'd at Scremerston Colliery.

Robert Davidson, a 50 year old, of West street, Spittal, had suffered extensive injuries, including a large number of fractured ribs driven into his lungs. The deceased, while at work at Scremerston Pit, had sent a set of tubs up from a level in which he was working and proceeded to another level nearer the shaft to find out from John Ferguson how many tubs he had. After speaking to Ferguson they heard a click, and Davidson said to Ferguson that the couplings of the tubs had snapped. The men rushed for safety, Ferguson going one way and Davidson another, but, unfortunately Davidson was caught by the runaway tubs and crushed. The deceased died soon after being taken home. John Ferguson, of West street, Berwick, rolleywayman,¹²⁸ stated in evidence that at about 11.30 a.m. on Friday, Davidson, a bank runner, was bringing

up a set from the Bellvue section of Scremerston Pit. The witness was working at White City Siding and the tubs were being drawn towards the shaft by direct wire rope haulage. . . .¹²⁹

IX. 12th April 1919

Alexander Charlton

A coroner's court found that Alexander Charlton, aged 33 years, of Berwick, a shifter¹³⁰ at Scremerston Colliery, died from:

Fractured spine and other injuries as a result of an accident at Colliery, 12 April 1919.

This labourer had been employed at the colliery for about two years and on the day of the accident was working the Cooper Eye Seam in the Bellvue section of the colliery. His injuries were caused by a quantity of coal falling from the roof. In evidence¹³¹ it was revealed that in long wall working the bottom half of the coal was taken out first. The top half was spragged up, and at the end of the shift the spraggs were knocked out and the coal allowed to overhang so that it would be easier worked next day. Spraggs were short props placed under coal at the front of a wedge-shaped excavation as a precaution against its premature fall.¹³² The verdict of the court was one of *accidental death*.

X. 24th June 1931

Joseph Dryden and James Rodgers Gibson

A local weekly newspaper reported:¹³³

A grim and tragic fate which only too often dogs the footsteps of those who work in the mines was brought home to all on Wednesday when a sudden inrush of water entrapped two workers in Scremerston Colliery. Hopes of rescuing them faded as the day progressed for though pumping went on at high pressure a long, deep, evil-smelling stretch of water barred the rescuers. The sympathy of us all goes out to the sorrowing families and we raise our hats to those who risk their lives daily to keep the wheels of industry turning and the hearths burning.

James Dryden, aged 35 years, and James Gibson, 49 years, had on the morning of the 24th June been investigating a stoppage of water at the sump. At about seven o'clock in the morning, when most miners had gone home, the inrush occurred. Although this was quite close to the shaft it was several days before the two bodies were recovered. James Gibson was the father of Tom and Jimmy [both of them feature in this paper]. Like their father both sons worked at Scremerston Pit and it was fortunate that neither was underground with him on the day of the tragic accident. Tom Gibson gave evidence at the coroner's hearing when the verdict on the two miners was of 'accidental drowning in the course of their employment'.¹³⁴

XI. 1st June 1937

William Barnett

This putter, aged 23 years, was working in the Roker section of Scremerston Colliery when he was struck by a set of electrically driven tubs and received serious back injuries. William Barnett, of Oxford Cottages, Scremerston, was taken to Berwick Infirmary where he died on the 24th June. At the coroner's inquest an open verdict was reached . . . 'the deceased met his death through an accident in the pit but there was not sufficient evidence to show who was responsible for the accident'. James Blackhall Burnett, of Oxford Blue Row, the deceased's father, was also a miner at Scremerston.¹³⁵

The instances quoted, in this record of fatalities that is far from complete, points to the dangers of roof falls that existed at Scremerston. The inrush was a solitary tragic occurrence while the circumstances of the death that resulted from suffocation was extremely unusual. A breakdown of the fatalities traced reveals:

Roof falls	5
Shaft mishaps	3
Flooding	2
Crushed by tubs	2

Half of these occurred in the months of November or December, when the colliery was at its busiest. The improved means of descending and ascending shafts in cages resulted in a reduced rate of shaft accidents at Scremerston Colliery, and it will be noted that the first two shaft accidents belonged to the pre-cage era and the third occurred when the shaft of Greenwich Colliery was being built.

In addition to fatal accidents there were many more of a less serious nature, as four news reports reveal:

1. 28th July 1813 — William Hall

On Wednesday, William Hall, a youth, employed in the Colliery at Scremerston, was driving the Corf Horse, when endeavouring to stop it at a turn, he got entangled among the ropes used for drawing the Corf up to the Pit mouth, and was dragged upwards of 60 yards, and was so severely bruised on his head and face that his life is despaired of. The Father of this lad was killed last year at the Pier Quarry.¹³⁶

William Hall, it seems, recovered. His burial was not recorded in the parish registers of Tweedmouth or Berwick, in the years following the accident.

2. 28th July 1840 — John Nesbit

On Monday last, as John Nesbit was descending the shaft to repair the pumps, on looking up he saw several spears or rods belonging to them about to fall. To escape was impossible. He, however, had the presence of mind to call Andrew Rae who was working 18 feet below him to 'stand in'; he did so, and escaped without hurt. Nesbit himself was less fortunate; the rod struck him on the head and deprived him of his senses. Rae returned in time to catch him in his arms, and save his life, at the risk of his own. Nesbit is now slowly recovering.¹³⁷

3. 1st August 1867

Some alarm was created at Scremerston Colliery on Thursday by the bursting of a boiler which is attached to an engine used in drawing coal from the pit. Although several people were in the vicinity, none of them were materially injured. Bricks and debris were carried a considerable distance by the explosion which roused the families of the men at the colliery, many of whom hastened to the scene with grave fears and were greatly relieved when they ascertained the comparatively light nature of the incident.¹³⁸

4. 21st July 1937

Part of the roof of the Scremerston pit fell in at the 'pony level'. Fortunately there was no one there at the time and everything was reported to be alright.¹³⁹

The accidents listed for Scremerston collieries are, as indicated, incomplete and further research is required to provide a comprehensive record of accidents that occurred in Scremerston workings and in the other coal mines of the triangle. An accident beyond the workplace that struck the Carr family in May 1829 had a devastating outcome:

A most melancholy accident happened at Scremerston. Mr William Carr of Ford, his brother, Mr George Carr, of Berwick, with their sisters, Misses Eliza and Mary Carr, had been on a visit to their brother-in-law, Major Johnson, at Scremerston, accompanied by Miss Jane Donkin, daughter of the late Mr Joshua Donkin, of North Shields, shipowner. After spending a happy day together, the party unfortunately proposed to return by sea, and they accordingly embarked in a boat accompanied by two boatmen; but lamentable to add, they had proceeded above two hundred yards from the shore, when the boat was upset in deep water, the sea running high at the time, with a north wind. Miss Eliza Carr and Miss Donkin sunk to rise no more, but the rest of the party providentially succeeded in getting upon a rock, where they remained till a boat from Spital rescued them from their perilous situation. To add to the anguish of the moment, Mr & Mrs Johnson were spectators to the heart-rendering scene from the beach. The body of Miss Donkin was found the same evening, but that of Miss Carr was not found till the Thursday following. The deceased were in the bloom of youth and beauty.¹⁴⁰

The Carr-Johnson family link will be noted. Major Johnson had married a daughter of John Carr of Ford, great-grandfather of John Evelyn Carr.¹⁴¹

MOVEMENT OF COAL

The surviving records of customs officials at Newcastle upon Tyne reveal a continuous and rapid growth in the shipments of coal between 1550 and 1700, first from Newcastle upon Tyne and then from other north-eastern ports. These records suggest that the coastwise shipments increased at least twenty-fold between 1550 and 1700. Coastwise imports to London grew even faster, probably more than thirty-fold, which is not surprising in view of the multiplication of the city's population in that period.¹⁴² Berwick, however, did not conform to the regional development of coal ports. Its outward movements of coal, coastwise or foreign, were minute. The 1635 journal of Sir William Brereton (1604-1661)¹⁴³ tells of the inadequacies of Berwick harbour and the existence of a single collier:

Berwick June 25 1635

The haven is a most narrow, shallow, barren haven: the worst I have seen: itt might bee made good, a brave and secure haven, whereas now onely one little pinke¹⁴⁴ of about 40 ton belongs unto itt, and some few fishing boattes:

Thus, Berwick's potential as a 17th century coal exporting port was extremely limited.

The earliest returns of coal movements from the port of Berwick that have been traced are:

	Newcastle measure chaldrons	bushels	Converted to tons
1795	12	18	31 tons 16 cwt
1796		Nil	
1797		Nil	
1798		Nil	
1799	56	—	148 tons 8 cwt

Available returns suggest that outward coal movements from Berwick peaked in the first half of the 19th century. In 1828 the coastwise movement of coals — to other ports of Great Britain — out of Berwick totalled 1,218 Imperial chaldrons,¹⁴⁵ or 1,613 tons, and by 1833 it was reported that the Scremerston Coal Company was planning to add another four ships to the 12 or 13 operating out of Berwick.¹⁴⁶ Also, in the 1830s other small boats, from ports such as Harwich and Folkestone, took on coals



Figure 6. Tramway through Spittal, 1822 (after Robert Good, 1829).



Figure 7. 'Coal drop' of 1938, Tweed Dock.

at Spittal Jetty. The tramway from Scremerston to Spittal was, according to J. E. Carr, laid down in about 1815.¹⁴⁷ In 1844 coal was being exported to Amsterdam, Bordeaux, Rouen and other European ports.¹⁴⁸ But in the second half of the 19th century most of the coal produced was sold locally and only small quantities passed through the port:

	Coal movements		
	Coastwise tons	Foreign tons	Total tons
1855	50	407	457
1856	130	100	230
1857	63	449	512
1858	190	347	537
1859	Not stated	18	18
1860	56	96	152
1861	174	169	343
1862	85	111	196
1863-1866	Not stated	Not stated	—
1867	335	210	545
1868	22	502	524
1869	30	Not stated	30
1870	64	56	120
1871	203	44	247

In this period imports of coal into Berwick appear to have far exceeded outward shipments, as returns for the 1880s suggest:

	Coals imported tons
1885	8,285
1886	Not stated
1887	8,139
1888	5,657
1889	3,769

In the final two decades in the life of Scremerston Colliery the coal was hauled from the pithead, by the engine 'Puffing Billy', down the 'old line' to the main Newcastle to Berwick railway. This traffic went on to Tweedmouth and via the Tweed Dock link to be loaded on to colliers. In 1911 the Dundonald Coal Co., in association with Scremerston Coal Co., leased a frontage at Tweed Dock from the Harbour Commissioners, and erected a conveyor capable of handling 120 to 150 tons of coal per hour.¹⁴⁹ In this period Scremerston coal was sent north to Aberdeen and to the English Midlands. In 1938 the 1911 coal chute was demolished and was replaced by one¹⁵⁰ that was to serve only for a decade.

POSTSCRIPT

All the workings in the Scremerston triangle, apart from Scremerston and Unthank collieries, were classed as landsale collieries from which coal was sold to carts for direct delivery. These were pits from which there was no tramway, railway or canal. But Scremerston, with its tramway to Spittal and later rail link to Tweedmouth, and Unthank, with its waggonway to the river Tweed, had links to markets beyond the district.

The Scremerston triangle had been a source of relatively low grade coal for more than three-and-a-half centuries. Coal was drawn from low seams, that dripped water, which, in spite of their thinness, would invariably present further mining problems by being split with bands of stone. How this small coalfield reflected the variations in the sediments deposited in Carboniferous times. The cruel geology determined cramped working spaces with water ever present. Conditions in the smallest workings could be primitive. At their best they were difficult and often hazardous. Those miners who spent their working lives in the triangle constituted a hardy breed. Today, there are few survivors who can provide first-hand accounts of mining in the Scremerston triangle. It will also be recognised that this was a district of small pits. The Scremerston collieries that employed in excess of 200 were barely medium sized. A few, like Shoreswood and Blackhill, were small while the remainder were extremely small.

ACKNOWLEDGEMENTS

The writer would wish to express his gratitude, for help given in the preparation of this paper, to Linda Bankier, Archivist of the Berwick Record Office; Jean Thomas, for secretarial assistance; James Walker, photographer; James Rowley and Jimmy Gibson.

SOURCES AND NOTES

1. Greenwell, G. C. (1869). *A practical treatise on mining engineering*. London: E. & F. N. Spon, 76-79.
2. Raine, James (1852). *The history and antiquities of North Durham*. London: John Bowyer Nichols, 235.
3. In the 16th century the boll was equivalent to 2 Berwick bushels. This was the new boll as distinct from the old or Scottish boll that was equivalent to 6 imperial bushels.

Onions, C. T. (Ed.) (1991). *The shorter Oxford English Dictionary on historical principles*. Oxford: Clarendon Press, 213.

By 1799 the boll was being expressed as a unit in Berwick that had acceptance elsewhere:

A boll of these coals, upon average, is supposed to weigh 10 stones; five bolls then, which is the usual quantity of one horse cart load, will weigh about six cwt. . . .

Fuller, John (1799). *The history of Berwick upon Tweed*. Edinburgh: Bell et al, 479.

4. **Wayleave:** the privilege of conveying coal over the surface, from a pit to a boundary. The right of wayleave could be charged by any proprietor, like James Radcliffe, across whose land the coal would pass. Thus, in 1711 Radcliffe's lease to Clavering allowed the latter free movement of coal over the Scremerston estate.
- Greenwell, G. C. (1888). *A glossary of terms used in the coal trade of Northumberland and Durham*. London: Bemrose, 67.
5. **Salt-pans:** if the salt making clause in the lease was put into effect the pans could well have been built at Saltpan How, Cocklawburn. If so, there could have been coal drifts nearby in the cliffs or in the undulating coastal strip.
6. Anon. 'Our colliery villages', 'LV Scremerston, Shoreswood, Billy Law and Felkington'. *Newcastle Weekly Chronicle*, 29 Nov. 1873, 2.
7. *Ibid.*
8. *The Berwick Advertiser*, 5 July 1984, 7.
9. Compiled from:
- *Ibid.*
 - Fowler, A. (1926). *The Geology of Berwick-upon-Tweed, Norham and Scremerston*. London: HMSO (Memoirs of the Geological Survey, England), 15.
10. *The Berwick Advertiser*, op. cit., 7.
11. Fuller, op. cit., 478.
12. Greenwell, op. cit. (n.1), 194-195.
13. Spence, W. (1994). Unpublished dissertation, Berwick Record Office (hereafter BRO).
14. *The Berwick Advertiser*, op. cit., 7.
15. Anon., op. cit. (n.6).
16. *The Berwick Advertiser*, 17 May 1878, 3.
17. *The Berwick Journal*, 21 June 1923, 3.
18. HM Inspectors of Mines (various years), *Lists of mines in Great Britain and the Isle of Man*. London: HMSO.
19. *The Berwick Advertiser*, 28 Sept. 1877, 3.
20. **Surviving Scremerston miners:** a fine example is Jimmy Gibson, of Spittal and formerly of Scremerston. He is an extremely active 81-year-old who, earlier this year (1995), led the writer and James Rowley, a member of this Club, around the former mining sites of Scremerston, Blackhill and Allerdean. In the field Jimmy vividly recalled conditions below ground and the mining personalities of the 1930s and 1940s. He entered Scremerston Colliery, aged 17 years, in 1930, the year before his father, also James Gibson, was drowned in the colliery. Jimmy's brother, Tom, features in the account on Blackhill and Allerdean Drift, in the text below.
21. Fowler, op. cit., 10-11.
22. *The Berwick Advertiser*, 4 Sept. 1930, 3.
23. Fowler, op. cit., 50-51.
24. *Ibid.*, 20.
25. *The Berwick Advertiser*, 3 March 1955, 1.
26. Parson, William, and White, William (1828). *History, directory and gazetteer of Durham & Northumberland*, II. Leeds Printed: Edward Baines, 331.
27. Pigot, J. (1834). *Pigot's commercial directory (northern England)*. London: J. Pigot, 572.
28. Robson (1841). *Directory of Northumberland*, 39.
29. *The Berwick Journal*, op. cit.
30. Fynes, Richard (1873). *The miners of Northumberland and Durham*. Sunderland: Thomas Summerbell, 197.

31. **John Evelyn Carr:** son of John Carr III (1830-1894) of Scremerston Seahouse. J. E. Carr, the fourth John Carr, as well as being managing director of the Scremerston Coal Co., also farmed Heather Tops and was a successful stock breeder. He was one of four brothers, two of whom were commanders in the Royal Navy in the 1st World War, when the other two served in the army. A sister saw active service in France and she had earlier served in South Africa. J. E. Carr was wounded in the latter part of 1914 in France when he was a private in the London Scottish. He was later commissioned in the Sherwood Foresters and became adjutant of his battalion.
- The Berwick Journal*, op. cit.
32. Ibid.
33. Kelly (1902). *Directory of Northumberland*, 446.
34. *The Berwick Journal*, 14 Nov. 1935, 10.
35. *The Berwick Advertiser*, 5 July 1984, 7.
36. Compiled from official publications (e.g. *Lists of mines*) and local directories (e.g. *Bulmer's directory*, 1886, 846).
37. **John Whitfield:** a native of Coanwood, near Haltwhistle, he worked with the Coanwood, Naworth, South Tyne & Dunstan Coal companies before becoming overman at Scremerston. After 30 years in the position he retired in November 1934.
- The Berwick Advertiser*, 29 Nov. 1984, 9.
38. Greenwell, op. cit. (n.1), 205-206.
39. Ibid., 195.
40. *The Berwick Advertiser*, 5 July 1984, 7.
41. Greenwell, op. cit., (n.1), 203.
42. *The Berwick Advertiser*, 23 August 1878, 3.
43. The small Scottish lamps were as indicated in the text, also used in Scremerston collieries and early in 1995 the writer obtained one that had belonged to Alex Richardson of Spittal, the last secretary of Scremerston Coal Co. This lamp had been used in the Jack Tar Pit. It is exceptionally small, consisting of three parts: a container of brass, a steel hinge to open the lid and a steel hook for hanging the lamp on the miner's cap. Circular in section, the base is 1½ inches in diameter, the container tapers to a height of 2 inches with a lid of 1 inch diameter. A frontal spout has a hole on top to take the wick. The lamp appears to carry a maker's name of W. Falconer but this is worn and so too is the place where made.
 According to former Scremerston miner Jimmy Gibson (n.20), the small lamps were still in use in the 1930s and used tallow, not oil. He remembers the miners swinging them backwards and forwards to kindle the flame.
44. *The Berwick Advertiser*, 16 Feb. 1984, 11.
45. *Whellan's directory*, 1855, 903.
46. Official returns. The most valuable of these that relate to mining are:
 Hunt, Robert/HM Inspectors of Mines (various years). *Mining and mineral statistics of the United Kingdom of Great Britain*. London: HMSO.
 HM Inspectors of Mines (various years), *Lists of mines (for different years)*. London: HMSO.
 Home Dept. (various years), *Lists of the plans of abandoned mines*. London: HMSO.
- These returns were also drawn upon to help identify the shafts that constituted Scremerston Colliery at different times. Where the returns are used elsewhere in the text, specific references are not quoted.
- The best available runs of these publications in north-eastern England and Scotland are in:

Map Library, National Library of Scotland, 33 Salisbury Place, Edinburgh EH9 1SL.

North of England Institute of Mining & Mechanical Engineers, Neville Hall, Westgate Road, Newcastle upon Tyne NE1 1SE. A charge is made to non-members wishing to use the Institute Library.

47. *The Berwick Journal*, 21 June 1923, 3.
48. BRO, D1/9, 5 Oct. 1903, 739.
49. *The Berwick Advertiser*, 5 July 1984, 7.
50. Ibid., 15 Sept. 1927, 3.
51. Ibid., 22 July 1982, 5.
52. *The Berwick Journal*, 14 Nov. 1935, 10.
53. *The Berwick Advertiser*, 19 Dec. 1935, 5.
54. *The Berwick Journal*, 15 Dec. 1938, 3.
55. *The Berwick Advertiser*, 16 Feb. 1984, 11.
56. **Standage:** a portion of workings excavated on the dip side of an engine pit, as a reservoir for the mine water, during a suspension of the pumping engine from work.
Greenwell, op cit. (n.4), 81.
57. *The Berwick Advertiser*, 16 Feb. 1984, 11.
58. Greenwell, op. cit. (n.1), 6.
59. *The Berwick Journal*, 22 Nov. 1951, 3.
60. Census returns, apart from 1831, which is an estimate from Morpeth Record Office, EP 126/48.
61. Morpeth Record Office, EP 126 and EP 126/46.
62. *The Berwick Advertiser*, 9 April 1842, 4.
63. Anon., op. cit. (n.6).
64. *The Berwick Advertiser*, 5 July 1984, 7.
65. **Yetlin:** a small pan or boiler.
Brockett, John Trotter (1825). *A glossary of north country words*. Newcastle upon Tyne Printed: T. & J. Hodgson, 242.
66. Anon., op. cit. (n.6).
67. *The Berwick Journal*, 21 June 1923, 3.
68. Anon., op. cit. (n.6).
69. Fowler, op. cit., 11.
70. *The Berwick Advertiser*, 10 April 1890, 4.
71. Raine, op. cit., 161.
72. Fuller, op. cit., 478.
73. Fowler, op. cit., 11 & 14.
74. Raine, op. cit., 252.
75. Ibid., appendix 160-161.
76. Ibid., 255.
77. Northumberland Record Office, 304/14.
78. Ibid., 304/13.
79. The three lessees of 1767 were freemen of Berwick upon Tweed and the guild roll of 1774 shows Fenwick Stow's place of residence as London, Elias Boreham, gentleman, lived at Berwick, and George Douglass, sen., was a glazier and plumber of Berwick. The lessee of 1753 could have been John Anderson, jun., a burgess-shopkeeper of Berwick. Thus, members of the guild held control of Unthank mining in the mid-18th century.
80. Raine, op. cit., 255.
81. Ibid.
82. Warne, C. R. (1976). *Waggonways and early railways of Northumberland, 1605-1840*. Newcastle upon Tyne: Frank Graham, 39.
83. Fowler, op. cit., 14-16.
84. BRO, D1/8-D1/10.

85. *The Berwick Journal*, 21 June 1923, 3.
86. Fowler, op. cit., 15.
87. *The Berwick Advertiser*, 6 April 1861, 1.
88. Joseph Milburne: grocer, fishmonger & game dealer, Bridge street, Berwick. *Kelly's directory, Northumberland & Durham, 1858*, 5.
89. Thomas Crewther, jun.: grocer & fish curer, Spittal.
Ibid., 229.
90. Fowler, op. cit., 15.
91. *Ibid.*, 14.
92. The Coal Nationalisation Act (1946) excluded all small pits employing 30 men or fewer underground; and several hundred of these, mostly drift mines were, in 1959, run by private enterprise under licence from the National Coal Board.
93. Parsons, Jack (5 Sept. 1959), 'The Blackhill Campaign', *New Statesman*, 269-271.
94. *Ibid.*, (8 Oct. 1960), 'The end of the Blackhill campaign', *New Statesman*, 515-516.
95. *The Berwick Advertiser*, 12 Sept. 1960, 1.
96. *Ibid.*, 15 Sept. 1966, 5.
97. Compiled from:
The Berwick Journal, 22 Nov. 1951, 3.
The Berwick Advertiser, 5 July 1984, 7.
98. Parsons, op. cit. (n.93), 269-271.
99. *The Berwick Advertiser*, 23 April 1981, 3.
100. *Ibid.*, 17 Feb. 1983, 5.
101. *Ibid.*, 31 Oct. 1985, 8.
102. McEwen, R. (1976). 'Domestic life in the great house in the 18th century', *History of the Berwickshire Naturalists' Club*, XL, 209.
103. Raine, op. cit., 310.
104. Fowler, op. cit., 11.
105. *Ibid.*, 13 & 15.
106. *The Berwick Journal*, 21 June 1923, 3.
107. *The Berwick Advertiser*, 27 Dec. 1823, 1.
108. *Ibid.*, 22 May 1841, 1.
109. *Ibid.*, 19 Oct. 1899, 1.
110. Fowler, op. cit., 22.
111. *Ibid.*, 25.
112. *Ibid.*, 28-29.
113. *Ibid.*, 20.
114. **Dayfalls:** it is uncertain what these were and Greenwell (n.4) fails to refer to them. But he includes (page 31) a day-hole as an adit or level, driven in at the side of a hill, for the purpose of working the minerals lying within it. Thus, a dayfall seems likely to have been a drift or adit, or perhaps a vertical shaft.
115. Fowler, op. cit., 28.
116. *The Berwick Journal*, 3 May 1951, 1.
117. Fowler, op. cit., 16.
118. Bainbridge, J. W. (1993), 'Coal mines of North Northumberland I', *History of the Berwickshire Naturalists' Club*, 46, 63-65.
119. *The Berwick Advertiser*, 16 Feb. 1984, 11.
120. *The British Gazette, & Berwick Advertiser*, 31 March 1810, 4.
121. *Ibid.*, 15 Dec. 1822, 4.
122. Morpeth Record Office, Tweedmouth Parish Overseer's letter book, 30 Aug. 1829.
123. *The Berwick Advertiser*, 2 Jan. 1841, 4.
124. *Ibid.*, 3 Nov. 1865, 3.

125. Ibid., 23 Nov. 1877, 3.
126. *The Berwick Journal*, 20 Dec. 1900, 8.
127. BRO, Quarter Sessions, P216.
128. **Rolleywayman**: the one whose business it was to attend to the rolleyway (or the horse road underground) and keep it in order. He was also responsible for getting the full waggons to the shaft and the empty ones in-bye.
Greenwell, op. cit. (n.4), 69.
129. *The Berwick Journal*, 2 Jan. 1919, 6.
130. **Shifter**: man paid by the day for doing shift work.
Greenwell, op. cit. (n.4), 75.
131. *The Berwick Journal*, 14 Aug. 1919, 4.
132. Technical terms from Greenwell, op. cit. (n.4), 52 & 80.
133. *The Berwick Advertiser*, 25 June 1931, 3.
134. Compiled from: *The Berwick Journal*, 25 June 1931, 2 & 4; 2 July 1931, 5.
135. Compiled from: *The Berwick Journal*, 1 July 1937, 6; 8 July 1937, 6.
136. *The British Gazette, & Berwick Advertiser*, 31 July 1813, 4.
137. *The Berwick Advertiser*, 1 Aug 1840, 4.
138. Ibid., 2 Aug. 1867, 3.
139. *The Berwick Journal*, 22 July 1937, 3.
140. *The Northern Year Book for Northumberland, Durham & Cumberland*, 1829, 104.
141. *The Berwick Advertiser*, 25 June 1931, 3.
142. Nef, John U. (1977). 'An early energy crisis and its consequences', *Scientific American*, 237, 142.
143. Hodgson, John Crawford (Ed.) (1915). 'The Journal of Sir William Brereton, 1635', *North Country diaries*, 2nd series. Durham: Surtees Society, 24.
144. **Pinke**: or pink, appears to have been a type of collier vessel, the stem of which was 'cat built', falling off to a point almost as sharp as the narrowing at the bow, and on top of this stern a square erection forming a high poop was built.
Heslop, Richard Oliver (1893-1894). *Northumberland Words*, II. London: Oxford University Press for the English Dialect Society, 538.
145. *The State of the Coal Trade*, 1829, 198. The Imperial and London chaldrons were half the weight of a Newcastle chaldron of 53 cwt.
Report from the Select Committee of the House of Lords appointed to take into consideration the state of the coal trade in the United Kingdom. London printed: 15 June 1829, 16 & 25.
146. *The Berwick Advertiser*, 4 May 1840, 4.
147. Ibid., 25 June 1931, 3.
The tramway was, however, upgraded after Greenwich Colliery was established. A well executed plan from the colliery to Tweedmouth Low Gate by Martin Johnsons & Fox, Engineering Surveyors, is deposited in the local record office (BRO, T2/2, Nov. 1844). Rather than being built as planned the existing coal and pier tramroads were adapted and continued to terminate at the three jetties close to Ellstell Fishery, Spittal. The outcome is shown on the Ordnance Survey 6 inch sheet of 1852.
A stone building, at Cliff Rest, on the cliffs above Spittal, was the machine-house for regulating the running of the trucks to the lower level.
148. *The Berwick Advertiser*, 31 Aug. 1844, 4.
149. *The Berwick Journal*, 21 June 1923, 3.
150. *The Berwick Advertiser*, 20 Jan. 1938, 3.

FIELD NOTES AND RECORDS — 1994

BOTANICAL RECORDS

D. G. Long

Royal Botanic Garden, Edinburgh EH3 5LR

Bryophytes

All records were made by D. G. Long during 1994. Nomenclature follows Corley & Hill, *Distribution of Bryophytes in the British Isles* (1981).

Mosses

Oxystegus sinuosus. On wall top by path leading to Dryburgh Abbey. NT5931, 30 January. Fourth record for vc81 for a southern species with fewer than ten Scottish sites.

Sphagnum angustifolium (*S. recurvum* var. *tenue*). Edge of small boggy woodland, Whiteadder Water opposite Retreat NT7760, 30 December. New to vc81. First record for eastern Borders but very likely overlooked.

Tetradontium brownianum. On sandstone ledges in ravine, Linn Dean, Paxton House NT9352, 24 April. New to vc81. This famous Scottish moss is rare in southern Scotland though it still grows in its original locality at Roslin near Edinburgh where it was discovered by the celebrated botanist, Robert Brown, after whom it was named, in the 1790s. It has long been looked for in Berwickshire as it grows just across the Tweed at Twizel in Northumberland.

Tortula marginata. On brickwork of bridge, Chapel on Leader NT5641, 12 June. New to vc81. A Mediterranean-Atlantic species, the third record for Scotland especially rare in the east: a northern extension of range from County Durham.

Zygodon conoideus. On *Sambucus* by stream, Linn Dean, Paxton House NT9352, 23 April. New to vc81. A typically western species which appears to be spreading into eastern counties.

Liverworts

Jungermannia pumila. On sandstone ledges in ravine, Linn Dean, Paxton House NT9352, 24 April. Confirmation of 1925 record.

Plagiochila britannica. Shady basalt rocks under conifers, Kyloe

Fort, Kyloe Hills NU0538, 17 February. New to vc68; shady rock outcrop by road, Leapy Plantation near Abbey St Bathans, NT7661, 30 December. Further new records of this recently described species.

Riccardia latifrons. On rotten log amongst *Sphagnum* at edge of small boggy woodland, Whiteadder Water opposite Retreat NT7760, 30 December. Third record for vc81.

Riccia sorocarpa. On footpath on sea banks, Yellow Craig near Coldingham Bay NT9265, 3 June. Third record for vc81.

Vascular Plants

Nomenclature follows Kent, *List of Vascular Plants of the British Isles* (1992). All are field records made during 1994 except where otherwise indicated; * refers to an introduction.

**Artemisia absinthium*. WORMWOOD. Rocky grassland, Coldingham Law NT9065, 23 July, M. E. Braithwaite. Only extant record for vc81. Perhaps originally cultivated at the Priory.

Astragalus glycyphyllos. WILD LIQUORICE. Rocky glade, Eye Water NT9362, 16 July, M. E. Braithwaite. Discovered in 1978; the only extant record in vc81. Population 20 plants.

Berula erecta. LESSER WATER-PARSNIP. Riverside, Blackadder Water NT7347, 22 May, P. Lusby; Mill Lade, Eye Water NT9363, 14 May, M. E. & P. F. Braithwaite; burnside, Horn Burn NT9160, 23 July, M. E. Braithwaite. Extensions to known range of a scarce species in vc81.

Chrysanthemum segetum. CORN MARIGOLD. Farm dump, Feuars-moor Plantation NT9162, 23 July, M. E. Braithwaite. Substantial population of a scarce species in vc81.

Coronopus squamatus. SWINE-CRESS. Pathside, Barefoots NT9464 and above Hallydown shore NT9265, 6 August, M. E. Braithwaite and BSBI party; Gateway, Gunsgreenhill NT9563, 27 August, M. E. Braithwaite. First records for vc81 since before 1916.

**Cotoneaster horizontalis*, *C. integrifolius* and *C. simonsii*. WALL, SMALL-LEAVED and HIMALAYAN COTONEASTERS. Calcareous cliff, Burnmouth NT9561, 26 September, M. E. Braithwaite. All three species are well naturalised.

**Crocosmia × crocosmiiflora*. MONTBRETIA. Sea braes, Barefoots NT9364, 28 May; Gunsgreen NT9564, 27 August; St Abbs NT9266, 26 September, M. E. Braithwaite. Naturalised. First records for vc81.

- **Crocosmia paniculata*. AUNT-ELIZA. Sea braes, St Abbs NT9266, 26 September, M. E. Braithwaite. Garden escape; not yet naturalised.
- **Dipsacus fullonum*. TEASEL. Cut-down wood, North Wood NT9063, 2 April, M. E. and P. F. Braithwaite; dump, Jubilee Bridge NT9160, 23 July, M. E. Braithwaite. Not otherwise known away from Tweed in vc81.
- Fumaria capreolata*. WHITE RAMPING-FUMITORY. Ayton NT9260, 14 June 1878, F. M. Norman (herb. Berwickshire High School), det. M. E. Braithwaite 1994. First record for vc81. The nineteenth century literature records do not distinguish this species from *Fumaria muralis* ssp. *boreai* which is frequent in the area.
- Geranium lucidum*. SHINING CRANESBILL. Bank, Blackadder Water NT77346, 22 May, P. Lusby, Scarce species in vc81.
- Juncus ambiguus*. FROG RUSH. Brackish mud, mouth of Eye Water NT9464, 27 August, M. E. Braithwaite, det. T. A. Cope. Seepage by sea, Petticowick NT9069, 26 September, M. E. Braithwaite. First records for vc81.
- **Lamiastrum galeobdolon* ssp. *argentatum*. WHITE-BLOTTCHED YELLOW-ARCHANGEL. Road verge, Foulden NT9255, 18 May, H. H. Edie. Evidence of spread.
- **Leontodon saxatilis*. LESSER HAWKBIT. Old lawn, Mellerstain House NT6438, 18 September, R. W. M. Corner. Second record for vc81; first record as an introduction.
- **Lilium martagon*. MARTAGON LILY. Roverside woodland, near Leaderfoot NT5735, 25 April 1981, M. E. Braithwaite. First record since 1902.
- **Mentha × villosonervata*. SHARP-TOOTHED MINT. Damp bank, Milldown Burn NT9166, 15 September 1954, P. S. Green, det. D. R. KcKean 1994; burnside, Fleurs Dean NT9265, 6 August, M. E. Braithwaite and BSBI party, det. O. M. Stewart; ditch, Kennels Plantation NT9167, 26 September, M. E. Braithwaite. First records for vc81.
- Potamogeton filiformis*. SLENDER-LEAVED PONDWEED. Millars Moss NT9068, 26 September, M. E. Braithwaite. A nationally scarce species just surviving here.
- Rorippa nasturtium-aquaticum*. WATER-CRESS. Burn, Coldingham Bay NT9166, 6 August, M. E. Braithwaite and BSBI party; reservoir, Millars Moss NT9068; rivulet, Mire Loch NT9168, 26 September, M. E. Braithwaite. Evidence of status of broad-fruited species.

Rumex crispus × *R. obtusifolius*. CURLED × BROAD-LEAVED DOCK. Meadow, Pyatshaw Burn NT5848, 1 September 1991, M. E. Braithwaite; Woodland edge, Mellerstain House NT6538, 18 September, R. W. M. Corner. First and second records for vc81.

Rumex longifolius. NORTHERN DOCK. Road verge A6089, N of Gordon NT6245, 16 September; road verge A6089, S of Skinlaws NT7035, 18 September, R. W. M. Corner. Second and third extant records for vc81.

Sagina maritima. SEA PEARLWORT. Concrete by sea, Burnmouth Harbour NT9560, 23 July; Gunsgreen NT9464, 27 August; St Abbs Harbour NT9267, 26 September, M. E. Braithwaite. The only earlier record for vc81 is St Abbs 1896.

Seriphidium maritimum. SEA WORMWOOD. Rock ledge, Agate Point NT9564, 27 August, M. E. Braithwaite. Scarce species in vc81.

**Sisymbrium orientale*. EASTERN ROCKET. Base of cliff, Eyemouth NT9464, 6 August, M. E. Braithwaite and BSBI party. Three plants.

**Solidago gigantea* ssp. *serotina*. EARLY GOLDENROD. Grass by burn, Milldown Burn NT9166, 6 August, Mrs M. Little. Second record for vc81.

Stachys arvensis. FIELD WOUNDWORT. Arable edge above Fleurs Dean NT9265, 6 August, M. E. Braithwaite and BSBI party. Second extant record for vc81.

**Vicia sativa* ssp. *sativa*. COMMON VETCH. Re-seeded road verge, A1 at English Border NT9757, 28 May, M. E. Braithwaite. First localised record for vc81. A showy plant with pink and purple flowers.

ZOOLOGICAL RECORDS

Lepidoptera

A. G. Long

Tweedmouth House, Berwick upon Tweed

Records by A. G. Long except where otherwise indicated.

Acronicta psi Linn. GREY DAGGER. One larva, Windsor Crescent, Berwick upon Tweed vc68, 23 September, A. G. Long.

Aglais urticae Linn. SMALL TORTOISESHELL. 17 flying by Flourishwalls Burn, Greenlaw Moor NT7248, vc81, 20 August, D. G. Long.

- Agrotis exclamationis* Linn. HEART AND DART. Tweedmouth vc68, 7, 13 and 17 June.
- Anthochares cardamines* Linn. ORANGE TIP. By A68, Earlston NT5737, vc81, 14 May, D. G. Long.
- Arctia caja* Linn. GARDEN TIGER. Cornhill vc68, 12 September.
- Autographa gamma* Linn. SILVER Y. Tweedmouth vc68, 26 July, 12 September.
- Camptogramma bilineata* Linn. YELLOW SHELL. Tweedmouth vc68, 7 September.
- Crocallis elingularia* Linn. SCALLOPED OAK. Tweedmouth vc68, 8 August.
- Cryphia domestica* Hufn. MARBLED BEAUTY. Tweedmouth vc68, 26 July.
- Diarsia rubi* Linn. SMALL SQUARE SPOT. Tweedmouth vc68, 27 August and 4 November.
- Eulithis mellinata* Fabr. CURRANT SPINACH. Tweedmouth vc68, 19 July.
- Eulithis pyraliata* Denis & Schiff. BARRED STRAW. Tweedmouth vc68, 19 July.
- Laothoe populi* Linn. POPLAR HAWK. Foulden Old Manse NT9355, vc81, 25 June, D. G. Long.
- Maniola jurtina* Linn. MEADOW BROWN. Eyemouth vc81, 24 August.
- Mithimna pallens* L. COMMON WAINSCOT. Tweedmouth vc68, 19 July.
- Naenia typica* Linn. GOTHIC. Tweedmouth vc68, 24 July.
- Omphaloscelis lunosa* Haw. LUNAR UNDERWING. Tweedmouth vc68, 10 September.
- Orgyia antiqua* Linn. VAPOURER. One larva on Castle Terrace, Berwick upon Tweed vc68, 27 August, M. J. Long.
- Peribatodes rhomboidaria* Denis & Schiff. WILLOW BEAUTY. Tweedmouth vc68, 19 July.
- Vanessa atalanta* Linn. RED ADMIRAL. Tweedmouth vc68, 23 September; 2 by Flourishwalls Burn, Greenlaw Moor NT7248, vc81, 20 August, D. G. Long.
- Xanthoroea fluctuata* Linn. GARDEN CARPET. Tweedmouth vc68, 30 May and 27 August.

THE MOTH *CHILO PHRAGMITELLA* IN ROXBURGHSHIRE

A. Buckham

Within the Family *Pyralidae* and in Subfamily *Crambinae* we find the moth *Chilo phragmitella* (Hübner) which is found in beds of the Common Reed (*Phragmites communis* Trin.), a widespread plant in swamp and marshland areas throughout the British Isles.

The moth is sexually dimorphic; the wings of the male are a dark or pale reddish brown, the hind wings a pale brownish white; the wings of the female are longer and narrower, a pale ochreous brown but the hind wings are white. The wingspan of the male is from 24 to 32mm; that of the female larger, from 30 to 40mm. The larvae feed inside the stems of *Phragmites communis* and *Glyceria maxima*, and emerge in June or July. The moth is single-brooded and comes to light, especially the male; the female also does so, but less freely.

In England the distribution is given as large reed beds in the south and in similar habitats north to Durham. In Scotland records are few, for Mid-Perthshire in 1959, the Tay estuary in 1967 (E. C. Pelham-Clinton), and the only Border record is for Adderstonelee Moss, Roxburgh in 1982 (K. P. Bland). For the next ten years I know of no further records, until the moth came to my light trap at Whitlaw Mosses National Nature Reserve, Roxburghshire, on 2 June 1992, when two were taken. On 8 July 1994 a further four were taken at the same locality.

Little is known about the distribution of this moth in Scotland. Is it a genuinely local species, or is it more widely distributed in suitable habitats and just under-recorded? Further Border records would be most welcome.

ACKNOWLEDGEMENT

Thanks are due to Dr K. P. Bland for details of records outside the Borders.

FURTHER READING

- Goater, B. (1986). *British Pyralid Moths*. Colchester: Harley Books.
Emmet, A. M. (ed) (1979). *A Field Guide to the smaller British Lepidoptera*. London: British Entomological & Natural History Society.

Birds at St Abbs Head in 1994

K. J. Rideout

This is a list of the bird species seen on or from the Nature Reserve in 1994. An asterisk indicates breeding species.

- RED THROATED DIVER — small numbers in Apr., May, Sep.
BLACK THROATED DIVER — singles in Apr., Sep.
GREAT NORTHERN DIVER — 1 in Apr.
*LITTLE GREBE — pair present Apr.-Oct.
GREAT CRESTED GREBE — 1 in Sep.
RED NECKED GREBE — 1 in Feb.
*FULMAR — 393 nests. Present all year.
SOOTY SHEARWATER — 1 in Aug., 35 in Sep.
MANX SHEARWATER — occasional Apr.-Sep., peak in June.
GANNET — seen all months especially summer.
*SHAG — 115 nests. A sharp decline following high winter mortality.
GREY HERON — regular sightings of 1-2 in summer.
*MUTE SWAN — seen most months.
WHOOPER SWAN — 4 seen in Oct.
PINK FOOTED GOOSE — flocks seen in Apr., Nov.
GREYLAG GOOSE — small groups in Apr., Sep., Oct.
BARNACLE GOOSE — occasional in spring and autumn.
BRENT GOOSE — 12 seen in Sep.
SHELDUCK — 2-3 occasionally Apr.-May.
WIGEON — small numbers in Sep.
TEAL — small numbers Mar.-Sep.
*MALLARD — 2 pairs nested. Present all year.
SHOVELER — 2 in Aug., 1 in Sep.
POCHARD — 1-2 in Jan., Feb., Aug., Dec.
TUFTED DUCK — present all year, peak in Oct.
EIDER — present all year, peak in Dec.
LONG TAILED DUCK — 1 in Apr.
COMMON SCOTER — fairly regular sightings of up to 40 May-Sep.
VELVET SCOTER — 2 in Aug., 2 in Sep.
GOLDENYEYE — up to 8 on Mire Loch, Jan.-Apr. and Nov.-Dec.
RED BREASTED MERGANSER — occasional on Mire Loch, Mar., Apr., Oct., Nov.
GOOSANDER — 1-3 on a few dates in Jan., Apr., May, Jun., Dec.
HONEY BUZZARD — 1 flew over on 2nd Jun.
HEN HARRIER — 1 flew over on 24th Apr.
GOSHAWK — 1 on 3rd Sep.
SPARROWHAWK — regular sightings during year.

- OSPREY — 1 flew over on 10th May.
KESTREL — regular sightings Apr.-Oct.
PEREGRINE — recorded most months.
WATER RAIL — 1-2 in Feb., Apr., Oct., Nov.
CORNCRAKE — 1 on 1st Sep. First Reserve record.
*MOORHEN — 3 pairs nested, scarce outside breeding season.
*COOT — 1 pair nested, scarce outside breeding season.
OYSTERCATCHER — regularly seen during year, especially Jul.-Aug.
DOTTEREL — 2 on 30th Apr. First Reserve record.
GOLDEN PLOVER — occasional in Apr., Jul., Aug., Sep.
PURPLE SANDPIPER — occasional birds in winter months.
JACK SNIPE — 1 in Oct.
SNIPE — singles in Mar., Jul., Aug., Sep.
WOODCOCK — singles in Feb., Apr., Oct., Nov.
BAR TAILED GODWIT — a few groups in Aug., Sep.
WHIMBREL — regularly seen flying over in Jul., Aug.
CURLEW — regularly seen during year, especially Aug.
SPOTTED REDSHANK — 1 in Aug.
REDSHANK — present most months.
GREENSHANK — singles in May, Jul., Aug., Sep.
GREEN SANDPIPER — 1 in Apr.
COMMON SANDPIPER — 1-2 in Apr., May, Jul., Aug.
TURNSTONE — occasional in winter months.
POMARINE SKUA — just 5 seen between 10th Aug. and 13th Sep.
ARCTIC SKUA — 78 seen between 29th Jul. and 15th Sep.
LONG TAILED SKUA — 1 in Aug.
GREAT SKUA — 43 seen between 16th Jul. and 15th Sep.
BLACK HEADED GULL — seen most months.
COMMON GULL — occasional Apr.-Aug.
*LESSER BLACK BACKED GULL — 1 pair nested.
*HERRING GULL — 296 nests. Present all year.
GLAUCOUS GULL — 1 in Apr.
GREATER BLACK BACKED GULL — present all months especially late summer.
*KITTIWAKE — 13,007 nests. Absent during winter.
SANDWICH TERN — regular offshore 31st Mar.-14th Sep.
COMMON/ARCTIC TERN — regular offshore Jul.-Sep.
*GUILLEMOT — c. 30,000 Apr.-Jul., occasional in winter.
*RAZORBILL — c. 2,000 Apr.-Jul., absent in winter.
*PUFFIN — present Apr.-Aug. with best count of 87.
*WOODPIGEON — five pairs nested.
TURTLE DOVE — 2 seen in Jun.
CUCKOO — occasional singles in Apr., Jun., Aug.
TAWNY OWL — occasional in summer months.

LONG EARED OWL — singles in Apr., May, Oct.

SHORT EARED OWL — several singles in Oct.

SWIFT — regular 8th May-Aug.

GREEN WOODPECKER — singles in Apr., Jul.

GREAT SPOTTED WOODPECKER — singles in Jun., Sep.

*SKYLARK — present most months.

SAND MARTIN — occasional 23rd Apr.-11th Aug.

*SWALLOW — recorded regularly 2nd Apr.-8th Oct.

HOUSE MARTIN — regularly seen 5th May-12th Sep.

RICHARDS PIPIT — 1 on 7th Dec.

TREE PIPIT — occasional singles in Apr., May, Aug.

*MEADOW PIPIT — seen most months.

*ROCK PIPIT — present all year.

YELLOW WAGTAIL — 1-3 in Apr., Jul., Aug.

GREY WAGTAIL — 1-2 in Feb., May, Jul., Aug., Sep.

*PIED WAGTAIL — seen most months with up to 40 roosting in Aug.

*WREN — present all year.

*DUNNOCK — present all year.

*ROBIN — seen regularly Apr.-Sep.

BLUETHROAT — singles on 4 dates in May.

BLACK REDSTART — singles in Aug., Sep., Oct.

REDSTART — 1-3 on 8 dates 23rd Apr.-27th May but scarce in autumn.

WHINCHAT — singles on five dates, 29th Apr.-20th May, 2-7 late Aug.-Sep.

STONECHAT — 1 28th Feb.-10th Mar., with 2 on 22nd Mar.

*WHEATEAR — frequently seen 28th Mar.-23rd Sep.

RING OUSEL — a few singles in May, Oct.

*BLACKBIRD — present all months.

FIELDFARE — occasional Apr.-May, up to 150 in Oct.

*SONG THRUSH — recorded most months.

REDWING — occasional in spring, up to 220 in Oct.

MISTLE THRUSH — occasional singles in Jun., Jul., Sep.

GRASSHOPPER WARBLER — 1-2 on 4 dates 28th Apr.-8th May.

*SEDGE WARBLER — regularly recorded 24th Apr.-14th Sep.

MARSH WARBLER — 1 on 2nd Jun. First Reserve record.

REED WARBLER — singles on 6 dates between 7th Aug.-1st Oct.

ICTERINE WARBLER — 1 on 7th Jun.

BARRED WARBLER — 1 on 13th Sep.

LESSER WHITETHROAT — 1-2 regularly 23rd Apr.-25th May, and 24th Aug.-24th Sep.

*WHITETHROAT — recorded regularly 23rd Apr.-18th Sep.

GARDEN WARBLER — 1-2 regularly 12th May-26th Jun. and 24th Aug.-23rd Sep.

- BLACKCAP — frequent singles Apr.-Jun. and Aug.-Sep. with up to 4 in Oct.
- PALLAS'S WARBLER — 1 20th-22nd Oct.
- YELLOW BROWED WARBLER — 1 on 22nd Sep., 1 17th-23rd Sep.
- WOOD WARBLER — 1 on 23rd Aug.
- *CHIFFCHAFF — regularly seen 24th Mar.-20th Oct. with peak in Sep.
- *WILLOW WARBLER — regularly seen 7th Apr.-14th Sep. with peak in May.
- GOLDCREST — present most months with peak in Oct.
- FIRECREST — 1 in Apr., 2 in Oct.
- SPOTTED FLYCATCHER — regular records 10th May-26th Sep.
- PIED FLYCATCHER — 1 in Apr., up to 4 23rd Aug.-23rd Sep.
- LONG TAILED TIT — small parties seen in Feb. and Oct.
- COAL TIT — small numbers, usually not more than 3, Apr.-Oct.
- *BLUE TIT — frequent sightings in all months.
- GREAT TIT — irregular sightings during year.
- NUTHATCH — 1 in May.
- TREECREEPER — 2 in Oct.
- RED BACKED SHRIKE — 1 23rd-25th May.
- *JACKDAW — present all year.
- *CARRION CROW — 8 nests.
- RAVEN — scarce Jan.-Aug., but fairly regular sightings Sep.-Dec.
- TREE SPARROW — seen in Aug. only.
- *CHAFFINCH — present all year.
- BRAMBLING — occasional singles Apr., May, and up to 30 almost daily 1st-18th Oct.
- *GREENFINCH — 1 pair nested but scarce outside breeding season.
- *GOLDFINCH — 1 pair nested, occasional during year.
- SISKIN — small numbers Apr., May, Jul., Sep.
- *LINNET — present all year.
- REDPOLL — occasional May-Aug.
- CROSSBILL — 3 records of up to 8 birds Jun.-Jul.
- BULLFINCH — up to 3 infrequently Feb.-Apr. and Oct.
- SNOW BUNTING — recorded on 3 dates in Oct. and 1 in Nov.
- *YELLOWHAMMER — present all year.
- *REED BUNTING — 2 pairs nested, seen most months.

ARCHAEOLOGICAL NOTES — 1994

THE BORDERS REGION

The Bield, Coldingham.

House extensions in 1994 established that an area at least 20m × 10m, 200m NE of the claustral buildings, was a cemetery containing children as well as adults.

Whytbank Tower.

A detailed survey was conducted by Scotia Archaeology Ltd. of the tower, courtyard, outbuildings and terraced gardens, possibly associated with occupation in the 18th and 19th centuries.

Melrose, the Newstead Project.

In the winter of 1994 Lilliesleaf East Field was walked, and several sherds of Roman pottery, a small piece of silver and a denarius of Domitian were found.

Ditches, a post hole and fragments of probable Roman pottery and brick were recorded during an excavation on the western side of the Roman Fort complex.

Excavation within the complex was carried out in advance of the removal of a field boundary. Four trenches revealed a metalled road, a substantial pit and a small, isolated pit. The large pit is likely to be a well. This feature and the road are believed to be Roman. Worked flint and chert, probably mesolithic, were found in the subsoil.

Bradford University carried out excavations in the Roman Fort complex ahead of construction of a new road. The line of the road was stripped of topsoil, and the sides of the former Waverley line railway cutting where this passed through the south annex of the fort were examined. A cobbled road leading south from the fort, annexes, ditches and wells were found, with fragments of bone, pottery, an iron axe, leather and wooden objects.

Melrose Abbey.

A series of features beside the R. Tweed, especially ashlar masonry on the south bank and an artificial masonry channel for the Huntly Burn, may be the result of Cistercian hydraulic engineering by the monks of Melrose Abbey.

Hawick — Tower Hotel.

Restoration of the mediaeval core of the Tower Hotel exposed

much of the 16th century Drumlanrig Tower of the Douglas family, converted by Anna, Duchess of Monmouth, into a comfortable townhouse in 1701-2. The original plan and evolution of the building became clear. The stepped battlement existed around the garret of the main block only.

Tamshiel Rig.

Extensive tree felling by the Forestry Commission has revealed the Iron Age settlement and field system for the first time since the 1950s.

Peebles.

A hoard of 290 Roman denarii was found near a hillfort near Peebles. It dates from 218-222 A.D., post-dating the Severan campaign. It has been allocated to Tweeddale Museum.

NORTH NORTHUMBERLAND

1994 has been a busy year for archaeology in Northumberland and a number of new and on-going projects have taken place in areas of North Northumberland.

Otterburn — High Rochester Roman Fort.

Work carried out by the Department of Archaeology at Newcastle University on behalf of the National Park and English Heritage has continued this year. A geophysical survey of two areas produced extremely interesting results. An area known as the 'Square Field', immediately to the east of the fort was surveyed using resistivity and magnetometry surveys. This detected an area of rectangular buildings and yards, including one or two stone built strip houses possibly set within ditched enclosures. These structures have been interpreted as the vicus, or civilian settlement, which appears to form a ribbon development along the Roman road. The survey of the south east angle of the fort indicated that four ditches existed outside the fort, perhaps representing two phases of defences.

Parts of the Roman road of Dere Street were also examined where they had been cut by field drains. This revealed that there had been three main road surfaces. The earliest road was c. 7.5m wide, this was overlain by metalling 9m wide, which the excavators suggest is probably too wide for a road and may have been used for some other purpose. The latest road surface was dated by a denarius of Marcus Aurelius, found immediately above it, to after 165 A.D. This surface was reduced to the much narrower width of 6.5m. In addition to the survey and recording

work, consolidation was carried out in the south interval tower where the stonework had been badly destabilised by a large ash tree. Stone masons from Arbeia Roman Fort consolidated the tower and during the works a large number of 3rd century pottery sherds were discovered within the blocking stonework.

Northumbrian Coastline.

The County Council's Strategy for Coastal Archaeology, noted in last year's *History*, identified a number of coastal sites at risk, particularly from erosion. As a result of this a number of coastal projects have been undertaken this year:

Low Hauxley.

At Low Hauxley the rate of coastal erosion is very severe. The remains of two Bronze Age burial cists were discovered in 1993 after very severe storms. This discovery has resulted in a project, led by Northumberland County Council and English Heritage, which will examine the remaining archaeological potential of the site. Lancaster University Archaeological Unit have been commissioned to evaluate the site. Work carried out so far has included environmental sampling of the cliff face, sampling of the old ground surface buried beneath the dunes and auguring across the whole site in order to determine the extent of the archaeological remains. Specialists are currently examining the material retrieved from the fieldwork. If their work can show that the remains at Low Hauxley can answer a wide range of questions, relating not just to burial practice but to the wider prehistoric landscape, it is possible that English Heritage will fund a full excavation of the site next year.

St. Ebba's Chapel, Beadnell.

A circular stone structure positioned on the very end of the rocky promontory of Ebb's Nook, a short distance from the chapel site, is exposed to the very worst of the elements.

It has been deteriorating rapidly and excavation was necessary in order to record information about the structure before it was completely lost. The work was undertaken in September 1994 by Northumberland County Council Archaeology Section and Alan Williams. The structure turned out to be a very well constructed lime kiln. Two flues were discovered, the one to the north was a substantial arched flue which had collapsed inwards, the eastern one (possibly a stokehole) was blocked by stone slabs. To the west, there was evidence of an earlier flue which had been subsequently blocked by later stone lining of the kiln, behind this were indications of a possible working pit filled with a mixture

of sand, ash, charcoal and lime. Archaeomagnetic dating of the structure gave a date range of 1480-1510 A.D. for the last firing. It is possible that the kiln had been in use for some time before that and is likely to have been used to produce lime for repairs or construction relating to the medieval chapel.

Other work on the site has involved removal of large quantities of windblown sand from the interior of the chapel. This has now given a far better understanding of the form of the monument. An interpretation panel will be erected later this year.

Holy Island — Fort on the Heugh.

Conservation works have been carried out during 1994-5 at the Fort on the Heugh, Holy Island. The surviving remains of the fort, built in 1675, consist of the remains of the central redoubt and the lower courses of the outer defensive walls. Severe erosion was threatening the stability of the southern defensive wall and the ground surface below, which contains levels of possible prehistoric date. The central redoubt was also in a poor state of repair. Archaeological recording in advance of consolidation works has included photographic survey, hachure survey, and recording and sampling of the eroding land surface. The environmental samples from possible mediaeval levels have contained large quantities of rye, a very uncommon cereal in Britain. Further work will be done to date the rye and investigate why such large quantities have been found here. Rye is common in southern Scandinavia and one theory is that it may have been associated with the Viking occupation of Holy Island. The consolidation of the fort walls and redoubt, funded by English Heritage, is now complete and it is hoped the fort will be able to withstand the elements for another 300 years.

Miscellaneous

Consolidation works are about to begin of Ridsdale Ironworks. English Heritage are grant aiding consolidation of this important mid-19th century industrial complex. Northumberland County Council will oversee the project.

A small exhibition looking at the history of Northumberland from prehistoric times, up to the present day, has just opened in the Country Cafe at Milfield. The display, which is situated within the chimney of the old forge, contains information on many of the archaeological sites which can be visited in the area.

Northumberland County Council has just produced a leaflet 'Exploring Northumberland's Prehistoric Past'. This is a guide to a few of the prehistoric sites which are accessible to the public. It only contains sites which are easily visible to the untrained eye.

and it is hoped that it will form a gentle introduction to the many fascinating and varied prehistoric sites which survive in Northumberland.

The material for the above notes was kindly supplied by Mr John Dent of Borders Region, and Miss Sara Rushton of Northumberland.

OBITUARIES

WILLIAM RYLE ELLIOT

There are few people of whom one could say that they were in a class by themselves, but Ryle Elliot was surely such a one. His wit and impish sense of humour made him a most lively companion.

He was born on September 9th, 1908, the second son and third child of Mr and Mrs William Marshall Elliot of Birgham House, Coldstream. When he reached the age of five he went to Birgham village school. Unfortunately, illness made it necessary for him to have the larger part of his education privately at home. Happily he improved and this made it possible for him to go to Sedbergh for a time.

After leaving school, most of his time was spent at home generally enjoying life. Ryle's father was a keen member of the Berwickshire Naturalists' Club and so in 1936, Ryle and his sister Grace joined the Club which they were both to serve with distinction in after years.

Ryle's health improved tremendously because before the war he had a spell of teaching in the Netherlands then when war broke out in 1939 he passed a medical examination for the RAF and served on Barrage Balloon squadrons.

Back home after the war he started attending Berwickshire Naturalists' Club meetings again and in 1956 when the late Major C. J. Dixon Johnson of Middle Ord wished to resign as secretary, Ryle took it over and held the office for 18 years with distinction.

During his life he had built up a great fund of knowledge of Border history from the earliest times. He was also a keen horticulturalist and in these and other subjects he earned a well-deserved reputation as an entertaining and erudite lecturer. Some years ago the members of the Berwick upon Tweed Local History Society were privileged to hear his talk on the origins of those peculiar cup and ring markings incised on rocks at Roughtinglinn Rothbury Moor and one or two other places in North Northumberland.



In 1968 he was President of Berwickshire Naturalists' Club and the subject of his address at the annual meeting was "Vignettes of some Berwickshire Gardens". On listening to him one was convinced that here was a labour of love.

After Birgham House was sold, Ryle spent most of his time with a sick friend in Aberdeen whom he nursed most devotedly until the friend died. Ryle remained in the Granite City, but his latter years were divided between his godson Frank Gamble's house in Ampleforth and Aberdeen.

About two months before his death, Ryle and Frank moved to Berwick but his health had broken, and he died on October 23rd, 1993.

E.T.B.

DAVID MACKENZIE ROBERTSON

The Berwickshire Naturalists' Club has always been held in high esteem, not only locally but nationwide, and no one did more to maintain its reputation and its traditions than David Mackenzie Robertson. He was President in 1965 and later he and his wife, Lena, were for 16 years Joint Field Secretaries, a hard-working and efficient team. They took endless trouble to ensure that everything would run smoothly at field meetings and when things did not go according to plan David's sense of humour would invariably put everyone at ease.

The youngest of four children, he was born on 7th August 1914, in Peebles, where his parents were highly respected and loyal church members. He attended Peebles High School and then went on to Edinburgh University, where he obtained a C.D.A. in the School of Agriculture.

On the outbreak of war he joined the army and was commissioned in 1940 in the Argyll and Sutherland Highlanders.

The great enthusiasm of his life was sport. He was a well-known amateur Border runner, winning many medals and he played rugby for Peebles and Galashiels and the Army. On two occasions he was Cornet in the local Riding of the Marches.

All his life he had a love of farming and the countryside and after the war he settled at Buxley near Duns as Estate Factor to Major Baillie of Manderston. There he spent over 30 years and on his retirement he and Lena moved to Kelso, where, as at Buxley, they were always welcoming hosts to their many friends.

David's untimely death in a car accident on 18th March 1994 deprived the Berwickshire Naturalists' Club of a courteous, kind and popular member.

E.S.

FIELD SECRETARIES' REPORT — SEASON 1994

The field meetings were arranged by a sub-committee consisting of the President (Mrs Sheila Romanes), Mrs Sheila Pate, Dr D. R. C. Kempe, and Mr G. C. McCreath, with Dr G. A. C. Binnie acting as convener.

18th May, Wednesday. WALLINGTON HALL AND GARDENS.

The Club was welcomed to the home of the Trevelyan family by Mr C. R. A. Olliver, the National Trust administrator of the estate. The head gardener, Mr John Ellis, then escorted members around the gardens to the east of the hall. On the way to the walled garden, the Chinese Pond, the Portico House and the Garden Pond were visited. A nuthatch was detected in one of the pines near the road.

In the afternoon one group of members toured the house, while the second group explored the grounds and visited the plant centre.

Tea was taken in the cafeteria.

This meeting was arranged by Mr Geoffrey McCreath, who was unfortunately indisposed and unable to be present on the day.

G.A.C.B.

16th June, Thursday EDROM PARISH, KIMMERGHAME HOUSE AND EDROM CHURCH

Despite the date, when we might have expected warm sunshine, our arrival at Kimmerghame, the ancestral home of Major-General Sir John Swinton and Lady Swinton, was in a downpour.

However, the rain stopped just in time for Sir John to address the members on the lawn in front of his beautiful mansion. He spoke of the family and house and of the disastrous fire which destroyed the larger part of the house. But later, when Lady Swinton and Sir John showed us the main rooms and the photographs of the original huge mansion, we could see how they had made a beautiful new dining room while the rest of the house is of a more manageable size for modern times than the enormous house would have been.

We explored the fascinating 'wild' garden and then were shown the glass houses and the vegetable and flower gardens by Mr Biggar, the gardener.

After lunch we drove the short distance to Edrom Church where we were addressed by the Rev. Hugh McKay who told us the history of the building and guided us round the churchyard and the crypt.

We then walked to the beautiful 'new' garden at Drumgray which Dr and Mrs Needham have created where there was only a rough field seventeen years ago.

In Duns, high teas prepared by Gay and John McKay at the Pewter Plate were enjoyed. This tea-room was a cabinet-maker's house and workshop in Georgian times.

S.R.

20th July, Wednesday. GLENKINCHIE DISTILLERY, ORMISTON ESTATE AND PENCAITLAND CHURCH.

Members met at Glenkinchie Distillery — there was an excellent turn-out!

The distillery was built in 1837 and is situated where the Kinchie Burn runs through a little glen near Pencaitland. The source of this lovely clear water is high in the north side of the Lammermuir Hills. In the 1970s the malting floor of the original building was laid out as a museum, pride of place there being a large model of a distillery showing the many processes the barley has to endure in the making of usquebaugh — the water of life. Each week the distillery uses 90 tons of malting barley which produces 30,000 litres of whisky. Of the whisky produced 95% goes for blending and 5% is bottled after 10 years as malt.

Members were divided into groups and in turn were shown over the museum and in the reception room watched a film showing the art of making whisky. During the film we were very kindly offered a glass of their delicious product. Lunch was taken in the distillery grounds in lovely sunshine.

Our next venue was the Great Yew and Ormiston House and courtyard. Regrettably arrangements for parking went somewhat awry. Where in January the drive and field were suitable for parking, by July nature had produced a high lush growth ungrazed by stock. However a fortunate few were able to hear a short address given by Professor Rosalind Mitchison who is Chairman of the East Lothian Antiquarian Society.

Members, having extracted themselves from this grassy jungle, then made their way to Pencaitland Church where they were

welcomed by Mr Ralph Barker, a former Session Clerk. Mr Barker, after pointing out the many important features outside, then invited members inside the Church and gave a most interesting address. Members were offered copies of *The History of Pencaitland Church* written by Mr Barker. The Church was consecrated in 1242 by Bishop de Burnham, and Winton Aisle is the oldest existing part of the present Church and dates from the 13th century. The Church recently celebrated its 750th anniversary.

An excellent tea was provided in the recently restored carriage house by the ladies of the management committee.

S.P.

18th August, Thursday. SMAILHOLM TOWER,
HUME CASTLE AND STICHILL FOREST NURSERIES.

The history of the tower was given by Mr Nicholas Bridgland of Scottish Heritage. He reminded members that Smailholm was contemporary with, and a scaled down version of Newark Castle. It was built by the Pringles, or Hopringles, as a watch tower, as a defensive work and as a dwelling. Associated with the last are the old field markings and dykes to the west of the tower, where cattle might have safely grazed but for the Border reivers. Reivers are said to have stolen 600 cattle from the Pringles and the tower enabled warning of approaching raiders to be given. Cattle could then be collected and driven into the walled enclosure at the foot of the tower. If determined assailants forced their way into the barmkin, the defenders could flee through the narrow entrance into the tower proper.

In later years the military significance of the tower diminished and the living quarters were extended to the west of the tower by using the now redundant barmkin. On the roof walk of the tower there is still a stone seat where the watchman could rest and watch.

Hume Castle is the ancestral home of the Homes and their many offshoots. The knoll on which the castle stands has been fortified for many centuries, with adjacent dwellings and buildings to the west. The castle was razed by Cromwell's troops, but was restored as what is almost a folly in the late 18th century by the Earl of Marchmont, another Home. The castle was closed because it was unsafe in 1977. Largely through the efforts of the Berwickshire Civic Society, the castle has been restored and was formally re-opened in 1993. The Chairman of the Society and Club member, Major General Sir John Swinton, addressed the Club within the walls of the castle.

The castle was used in Napoleonic times as a watch tower. A

sergeant from outside the area saw the flames from charcoal burners' fires, misunderstood their significance and set fire to the signal. This was taken up by all the watch towers within range and Borders volunteers were called out. Fortunately the St Abb's watchmen reasoned correctly that there was unlikely to be a seaborne invasion from the west, so that the Lothians were not alerted. In the event, 600 Berwickshire volunteers marched to Dunbar overnight before receiving the news that it was all a false alarm.

The castle was used in the last war as a supply depot for the local underground resistance movement in the event of invasion.

A substantial wooden door was placed in the west-facing doorway in the recent renovations, but was blown off its hinges in the first westerly gale. The replacement iron yett has the Home crest on it. A well was found during the work.

The afternoon continued at Stichill Forest Nursery, by permission of Messrs G. & F. Rogers. Three groups were escorted round the nursery by members of the family, who demonstrated the seed beds and the various stages of development of young trees. This year 100,000 wallflowers were being grown, and members were intrigued to see them being transplanted mechanically, albeit with a little manual help from children on school holiday work.

Tea was served in Stichill village hall by the hall committee.
G.A.C.B.

21st September, Wednesday. THOMAS BEWICK: CHERRYBURN HOUSE, OVINGHAM CHURCH AND PRUDHOE CASTLE.

Mr and Mrs Thirkell, the custodians, their staff and voluntary helpers welcomed some 80 members and friends to Cherryburn House, the birthplace of Thomas Bewick in 1753. His father was a tenant farmer and small coalmine owner, and features of the farmyard were seen. Bewick was born in the small cottage, the larger house being built by Bewick's younger brother in the 1820s. It now houses the pressroom and other exhibition areas. In the pressroom members were told the story of Bewick's apprenticeship in copper and other engraving techniques, leading to the wood engraving used by him to illustrate the books which made him famous. Printing and engraving were demonstrated. The exhibition of mementos of Bewick was visited. A guided walk to the Tyne, passing a farm and traces of the Bewick coal mine completed the morning.

The custodian of Prudhoe Castle, Mr Howard Hill, outlined the history of the 12th century castle, built in the reign of Henry II by Odinel d'Umfraville. It was besieged for three days in 1174, and passed to the Percy family some 400 years later. Special features of the gatehouse were pointed out, including the chapel and barbican, as well as the curtain wall and the keep of the castle.

Ovingham Church of St Mary, or Offa's church, is on the north bank of the Tyne and also serves Ovington. The Vicar, the Rev. David Goodacre, welcomed members and first showed the Club the celebrated Saxon tower, which dates from about 900 A.D. A talk illustrated with an overhead projector was given in the church. Saxon settlement, under Offa, nearby on Carelgate, the main east-west road, led to the foundation of the two small villages bearing his name and the relatively large church. Some of the interesting features of the church were pointed out, including the Celtic head, the carved stone cross fragment below the pulpit, the sculpture over the church door, the decorated south aisle capital, the 14th century bells and Bewick's gravestone of 1820, now in the porch. The original vicarage dates from 1378 and was an Augustinian monastery for 150 years. It is now owned by Mr Frank Atkinson, founder the Beamish Open Air Museum.

Tea was taken at the Bridge End Inn.

D.R.C.K.

21st October, Friday. THE ITALIAN GARDEN, HAGGERSTON CASTLE.

Club members met in the Castle Café and after refreshment were addressed there by Mrs J. Goldthorpe and Mr Brian Cato. Members were reminded that the stables, the rotunda, the 12-storey water tower and the Italian garden are the chief remains of Haggerston Castle, largely built at the turn of the century, and demolished 30 or 40 years later.

By kind permission of Mr and Mrs J. Goldthorpe, members and their friends were allowed to view the garden. It is laid out in traditional Italian style and there are said to be one-and-a-quarter miles of pathway in the garden which divides it up into 36 square and rectangular beds and eight borders. There are four ponds and a gazebo, and the original wrought iron gates are still in place, despite having been buried during the war to prevent them being taken for scrap metal.

G.A.C.B.

A footnote to the mystery surrounding the stone which several members were interested in transcribing: I was leafing through Club histories and in an article on Doddington Bastle I saw a picture of the stone now in the Italian Garden. It was previously set under the parapet in the North wall of the Bastle. Club members saw it there in 1869. After deterioration to the Bastle in 1896 Mrs Butler of Ewart rescued the stone and it was kept at her home until her death and the disposal of her estate in 1937. The author says the stone has not been traced since. (Morse, David (1983), *Doddington Bastle, A Four-Hundredth Anniversary. History of the Berwickshire Naturalists' Club*, 42, 134.)



Mr Morse translates this as "Thomas Grey Knight paid for the building of this structure A.D. 1584"

K. Tansley

Extra Meetings

9th June, Thursday. REDPATH SITE OF SPECIAL SCIENTIFIC INTEREST, LONGFORMACUS.

By permission of Club members Mr and Mrs Andrew Pate, about 40 Club members and friends met at Redpath farm on a sunny but windy day. Mr Andrew Panter of Scottish Natural Heritage conducted the party around the site.

It was explained that the Redpath site, although a very small area, was one of only four or five northern hay meadows in the Borders Region. Other areas were all affected to a greater or lesser degree by herbicides and fertilisers, cultivation and drainage. Some 120 botanical species have been listed at the Redpath site, and a copy of the list is held in the Club library. There are two comparative rarities, the melancholy thistle, *cirsium helenioides*,

and the globe flower, *trollius europaeus*, each having only four or five known habitats in the Region. There was a patch of globe flowers in full bloom to greet the party, and flowers of the bugle, *ajuga reptans*, and the marsh marigold, *caltha palustris*, were evident.

The strong wind made bird watching difficult, but the cries of three or four curlews complemented the upland scenery, and a wren was heard but not seen in some nearby woodland. A recently vacated mallard's nest was also found.

G.A.C.B.

8th September, Thursday. WEMYSS CAVES AND MACDUFF CASTLE.

Ten minutes before the starting time the cars of only four members were in the car park with a gale from the east and lashing rain. The car park was a quagmire traversed at short intervals by a digger, and there was no sign of the speaker. There was a family of arctic terns about ten yards from the cars, no doubt wishing they had migrated. By 2 p.m. the sun was shining and Mr Peter Yeomans, Fife Regional Archaeologist, was conducting the party around the caves and giving an excellent series of addresses. Ten minutes after the meeting ended the heavens opened to the accompaniment of thunder and lightning.

Wemyss was the most southerly area of Pictish occupation, and the cave carvings are one of only two known sites in Scotland, Pictish carvings much more commonly being found on stones.

There is continuing erosion of the shore, the sea now being only yards from some caves, having been 100 yards further away a century ago. In addition the cliffs containing the caves are geologically unstable. The water supply for Macduff Castle came from the Well Cave, reached by a flight of stairs in the cliff. That cliff is so unstable that when structural engineers checked its stability recently, individuals ran in and out alone, to reduce the risks to the party.

There is an iron age carving in one cave and Jonathon's Cave, unlocked for our visit, has a fine collection of Pictish carvings from about the 6th century. The caves were not used as dwellings until the 18th century when Jonathon and his family lived and worked here. It is thought that the Pictish carvings may have been more in the nature of doodles than to have any religious significance.

The meeting ended with a visit to MacDuff Castle perched above the cliffs. What remains is only half of what was present in the late 1960s when a council engineer decided that the eastern

half of the castle was unsafe, and had it demolished with explosives. The end result was that the remainder of the castle is now unsafe with no funds to make it safe. However, Club members were able to view it without running.

G.A.C.B.

LIBRARIAN'S REPORT — 1994

Ryle Elliot was Club President in 1968. What was unusual about his year of office was that he was also Field Secretary and Corresponding Secretary at the same time. He died earlier this year and his executors have kindly given some of his books and papers to the Club library, including various copies of the Club History.

There were several reprints of articles by C. H. Hunter Blair, including:

- Armorial upon a new map of Northumberland* (John Warburton 1716), 1956.
Armorial of Newcastle upon Tyne, 1956.
Hatchments in Durham County, 1954.
Wall Knoll, Sallyport of Carpenter's Tower, 1958.

Printed works included:

- Birley, E. (1959). *Chesters Roman Fort* (guide).
Birley, E. (1954). *Corstopitum Roman Fort* (guide).
Birley, E. (1949). *Centenary Pilgrimage of Hadrian's Wall*.
Browne, A. H. *Catalogue of works of Antiquity and Art at Callaly Castle*, 1892.
Fraser, C. M. (1959). *Prerogative and the Bishops of Durham, 1267-1376* (reprint).
Hackett, B. (1960). *A Formal Landscape at Hesleyside in Northumberland* (reprint).
Hudson, P. (1921). *The History of Wolflee*.
MacRae, J. A. (1866). *A List of Pictures etc at Prestonhall*.

The Borders Family History Society has continued to record the gravestone inscriptions of Roxburghshire, and this year the library purchased the lists for Crailing and Nisbet, Makerstoun and Smailholm. Other works bought were:

- Craig, G. Y. (1975). *The Geology of the Lothians and South-East Scotland, an Excursion Guide*.
Howdle, J. (1991). *Mertoun Mediaeval Church*.
Layhe, E. (1994). *The History of Berwickshire Towns and Villages*.
Long, A. G. (1965). *On the Cupola Structure of Eurystoma Angulare*.
Long, A. G. (1960). *Stamnostome Huttonense from Calciferous Sandstone Series of Berwickshire*.
McAdam, A. D. et al. (1993). *Scottish Borders Geology: an Excursion Guide*.

Murray, R. (1992). *Channelkirk Clippings*.

Robson, M. J. H. (1989). *An Ingenious Mechanic of Scotland*, James Small.

Photocopies of two of Dr George Johnston's letters were bought, as was a photocopy of his 1824 *Dissertation on Cancer*, written as part of his F.R.C.S.E. examination. A photocopy of an article on *Pictish Cave Art at East Wemyss* was also purchased, as was a copy of *The History of the Parish of Mordington*.

Received as gifts were copies of R. W. I. Schofield's Eyemouth Parish Church Centenary booklet of 1979, and D. Lindsay's leaflet on Eyemouth Parish Church of 1982, as well as *The Diary of Thomas Douglas of Coldstream*, covering the years 1793 to 1830.

Finally a cutting of an article on *Ice Houses* by Club member Dr D. R. C. Kempe, published in the *Berwick Advertiser*, has been retained in the library.

G.A.C.B.

LIBRARIAN'S FINANCIAL STATEMENT FOR THE YEAR ENDED 30th JUNE, 1994

<i>INCOME</i>	<i>£</i>	<i>EXPENDITURE</i>	<i>£</i>
Opening balance	131.03	Postage	8.95
Sales of Histories	108.87	Books	110.50
		Bindings.....	46.50
			165.95
		Closing Balance.....	73.95
	<u>£239.90</u>		<u>£239.90</u>

CORRECTION

Vol. 46, Part I. 1993. *The Sixteenth Century Border Lairds: a Study of the Links between Wealth and House Building*, by Dr Maureen Meikle — the photographs appearing on pages 16 and 19 should be transposed.

FINANCIAL STATEMENT FOR THE PERIOD 1st OCTOBER 1993 to 30th JUNE 1994 — PREMIUM ACCOUNT

<i>INCOME</i>	<i>EXPENDITURE</i>
Balance at 1/10/1993	£4,603.07
<i>Subscriptions</i>	
Annual & Libraries (including subs overpaid)	3,341.00
Arrears	71.00
<i>Sundry Credits</i>	
Entrance Fees, Badges/Ties	108.00
Donations.....	68.00
Bank Interest	73.15
Visitors' Fees	31.00
	<i>Expenses</i>
President	41.00
Corresponding Secretary	112.46
Field Secretary	24.48
Treasurer	38.88
	<i>Balance at 1/7/1994</i>
	£8,295.22
Balance in Natural History Publication Fund	<i>£2,844.10</i>

13/9/94. I have examined the books of The Berwickshire Naturalists' Club and from the information and vouchers provided have found them to be correct and in order.

(Sgd) E. J. Kellie
Royal Bank of Scotland, Ayton.



ADVICE TO CONTRIBUTORS

The *History* of the Berwickshire Naturalists' Club has now run continuously for 163 years. It has recorded a huge amount of information about every aspect of life in the Borders: archaeology, genealogy, history, sociology, topography, and all branches of natural history. It is an invaluable repository for such primary information.

Many people with special knowledge of Border affairs and happenings may, perhaps, be inhibited from contributing to the *History* by being unfamiliar with how to put an article together. The following notes are designed to assist, reassure and encourage such people; but also to be a general guide to all contributors. The requirements are simple; but the more closely the notes are followed, the speedier will be publication, the easier the lot of the Editing Secretary; and the greater the likelihood that the Club will be able to attract Editing Secretaries in the future!

Manuscripts are best typed, double-spaced, and two copies sent; but even handwritten documents, if clearly legible, can be considered. References in the text to other publications are most simply done by author name(s) and date and then listed in alphabetical/chronological order at the end of the manuscript, giving the title of the document and, for papers in journals, the volume and page number, for books, the place of publication and the publisher. In this style:

Baxter, E. V., Rintoul, L. J. (1953). The birds of Scotland, Edinburgh: Oliver and Boyd.

Boyd, H., Ogilvie, M. (1969) Changes in the British wintering population of the pinkfooted goose from 1950-1975. *Wildfowl*, 20, 33-46.

Taylor, G. (1937) List of fungi observed in the neighbourhood of Cockburnspath. *History of the Berwickshire Naturalists' Club*, 29, 303-313.

Titles of periodicals should be written in full, as above, not abbreviated.

Sometimes text references to other publications, documents, etc., in the text are more conveniently done by superscript numbers, e.g.: "the house of Netherbyres⁵"

and then related to a numbered entry in a list of references/notes at the end of the paper, as e.g.:

"5. Scottish Record Office TD 78/7."

When other publications have been consulted but are not specifically cited, it may still be useful to guide readers following up the subject, to give a "Bibliography", citing the publications in the same way as for references above.

Illustrations should be numbered consecutively and provided with short descriptive legends.

Contributions may be sent direct to the Editing Secretary, or handed to any Council Member.

Copyright. The copyright of papers published in the *History* will normally be understood to pass to the Berwickshire Naturalists' Club, as a permanently accessible institution, but authors may reserve copyright to themselves, if they so wish, by a written request to the Editing Secretary.

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Berwick upon Tweed TD15 1DQ, U.K.

The Club Library is held in its own room in Berwick Borough Museum. Access for members is available at no cost on presentation of a Club Library ticket at the entrance to the Barracks. Tickets are available from the Librarian, and visits should be made by appointment with the museum curator, telephone 01289 330933.

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